Delaware environment: Saving oysters while there's something to save

Project aims to boost funding, population

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Cysters reproduce by broadcasting sperm and egg into the water column. The larvae move in the water and then cement themselves to hard surfaces — like existing oyster reefs.

The fresh shell provides additional habitat.

In the Delaware Bay, the oysters are so desirable that they are sold for the half-shell market. That means commercial fishermen are harvesting the oysters shell and all.

But they compensate for what they are removing by contributing to a fund that goes to Delaware and New Jersey to buy and restore shell.

The trouble, Powell said, is not shell loss from harvest but loss from oyster disease.

"The total number of deaths, that's really the problem," he said.

Oysters are considered a keystone species in the Delaware Bay because their huge biomass contributes to spawning and nursery areas for other fisheries and because of their contribution to water quality.

In the 1880s, the commercial harvest reached a peak of 2.4 million bushels a year and Delaware Bay oysters — both canned and on the half-shell — were a delicacy.

There were an estimated 500 oyster boats working the oyster beds in the bay, and fortunes were made in bayfront communities like Port Mahon in Delaware and Seaville in New Jersey.

The harvest was half that in the 1850s but still robust.

Then the oyster disease MSX hit. In a matter of months, an estimated 50 percent of oysters on the beds were dead. By 1860, 49,000 bushels of oysters were harvested.

Through the 1970s and 1980s, the fishery made a slow recovery, and in 1988, a second oyster disease, Dermo, hit.

Powell said Dermo is directly related to climate change in the estuary and rising water temperatures.

"It would not naturally be in Delaware Bay," he said. "It's here because Delaware Bay has warmed up."

Even with the disease, the beds hung on.

The trouble is, they eventually put oyster reefs into a negative shell balance "and that's something that can't be easily fixed."

The oysters that survive still are reproducing and the shell that is there continues to provide habitat, but because of lower reproduction, there is less new shell created on the reef.

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