The Slow Struggle to Bring Back the Oyster

Ned Gaines of the Haskins shellfish laboratory cultivates baby oysters by a method that may hold the key to the future of the oyster in Delaware Bay.

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CAPE SHORE

THE cold, gray bay washes over the tiny oyster seeds nestled in plastic mesh bags. These baby oysters, cultivated by hand on a sandbar north of Cape May, may hold the future for a New Jersey industry that once flourished but is now gasping for breath.

In the Region

A handful of aquaculturists - or fish farmers - are trying to grow a new generation of oysters in this largely barren stretch on Delaware Bay just north of Cape May - bred to be disease-resistant, spawned in temperature-regulated
tanks and nursed on home-grown plankton.

"It's a lot of hard work," says Everett Marino, 66, who drives an hour each way, two to three times a week, to tend - knee-deep in the tide - his muddy crop of 200,000 to 300,000 oysters.

A century ago, New Jersey's oyster business was in its prime. From 1880 to 1930, 1 million to 2 million bushels of oysters a year were harvested from beds in the lower part of Delaware Bay. (Each bushel contains about 285 oysters.) This year, the oystermen will be limited to a total of 26,203 bushels. In 1881, 675 oyster boats plied these waters. Today, 74 boats are licensed to take oysters in the state.

These days, Mr. Marino raises young oysters here, rotating the older survivors onto racks and rinsing them off when they become too muddy to try to prevent them from smothering. As they grow, he transplants them to a cove near his restaurant, Dill's Crab and Oyster Bar in Bridgeton. Yet after all that, 85 to 90 percent of the oysters die.

To more-traditional oystermen, who dredge off the bay bottom the old-fashioned way, this new style of oyster farming seems strange and silly.

"You'll never see me doing that," said Kenneth Bailey, who operates a dock in Bivalve and has been a waterman for 32 years. "There's too much overhead. It's a pipe dream in my opinion."

Indeed, Steve Fleetwood, president of Bivalve Packing Company, the largest oyster harvester on the bay, said, "We can sell in a day what they produce in a year."

So goes the current debate in the feast-or-famine oyster industry in the towns dotting the lower portion of Delaware Bay.

Disease, changing tastes and development pressure have taken their toll on New Jersey's $14-million-a-year oyster industry, which has largely dwindled to a niche market for high-end seafood houses serving oysters on the half-shell.

"I would like to see more shellfish cultivated and marketed, but for now the bulk of it is really a white-tablecloth market," said Sandra Shumway, professor of marine sciences at the University of Connecticut at Groton, who edits The Journal of Shellfish Research.

In the glory days, towns along Delaware Bay like Bivalve were processing hubs where
thousands of workers shucked and canned oysters that were shipped west by train to Chicago and even to California. On the East Coast, oysters were so abundant and cheap they were sold off carts the way hot dogs are today.

But by the 1920's, the industry fell into decline as virgin beds became exhausted from overfishing. Then, in the late 1950's, bay oysters were nearly wiped out by a parasitic disease known as MSX, which was harmless to people but deadly for oysters. Just as the oysters developed resistance to MSX, however, a more virulent parasite, known as Dermo - which also posed no danger to humans - struck in the early 1990's.

Once again, the industry struggled to come back, and did have a few good years in the late 1990's. But by this spring, the number of young oysters appeared to be at an all-time low after five years of abnormally high mortality, according to scientists at the Haskins Shellfish Research Laboratory of Rutgers University, which operates the hatchery here.

Why the current dearth of baby oysters? The suspects include erratic changes in water temperature, variations in salinity, pollution, new predators or disease.

"We're puzzled," said Eric Powell, director of the Haskins laboratory. "It could be any one of many things or some combination, but this is all new and it's all bad."

As a result, state officials cut the oystermen's total quota to 26,203 bushels this spring, down from 67,735 bushels in 2004. And last year's quota represented a gradual decline that began in 2001, when oystermen we allowed to take a total of 108,120 bushels.

'Harder to Make a Living'

"We can do that in a few days work," said Mr. Fleetwood, whose company also processes other types of seafood. "It's getting harder and harder to make a living at it."

Last year, oysters valued at $1.8 million to $2 million on the wholesale market were harvested, and generated an additional $11 to $12 million in economic activity, Dr. Powell said.