

River pearls

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STAFF WRITER

MASHPEE - Lisa Larsson watched her children rummage through trays of oysters hauled up onto Mashpee Neck landing and then run to her, carrying their prized mollusks in their little hands.



■ Mashpee residents harvest a bounty of oysters - no heavy digging required - at Mashpee Neck landing Thursday afternoon, while Mashpee shellfish constable Rick York secures his boat.

(Staff photo by Kevin Mingora)

"I found one shaped like a motor," 4-year-old Caroline yelled as she zipped up the beach toward her mother before dropping the oyster in a bucket.

Mashpee's oyster beds opened for the second year in a row on New Year's Day for what seems to be the start of a tradition the town lost more than 20 years ago.

And it is a tradition aimed not just at people's bellies but also at improving the health of the Mashpee River and Popponesset Bay.

Shellfish constable Rick York began growing the oysters in 2004 as a way of removing nitrogen from the bay and its tributary river.

He learned the trick while working as a researcher at the University of Hawaii. The oysters eat nitrogen-rich microscopic plants and in so doing remove nitrogen from the water.

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The plethora of nitrogen in the Cape's environment comes mainly from septic systems, which do a good job of removing organic solids, but not water-borne compounds such as nitrates and phosphates. In fact, the Cape's porous, sandy soil does little to filter any of these pollutants, and what comes out of our septic systems can travel pretty far to reach sensitive water bodies.

An excess of nitrogen in both salt and fresh waters can cause a buildup of algae, York told the Times last fall. Algae use oxygen to survive and high levels of algae can deplete the oxygen in a body of water, killing the fish and plants that live in it.

By 1992, when York started working in town, oysters had disappeared from the Mashpee River, victims of algae and disease.

The state Department of Environmental Protection found that 500 kilograms, or 1,100 pounds, of nitrogen would have to be removed from the river to keep it clean.

By the time an oyster reaches about 3 inches, or harvest size, it has sucked half a gram of nitrogen from the bay. With 100,000 oysters harvested last year, that's 50 kilograms - about 110 pounds - of nitrogen removed by that crop. York hopes to harvest at least another 100,000 by the time the season closes in March.

Opening the beds to the public is an added bonus, especially since shellfish disappeared from the river in the early 1980s, rendering "oystering" a thing of the past for residents.

"The big value of this project is it's going to take years, maybe even decades, to fix the wastewater problem with sewer infrastructure," York said.

"Meanwhile, it's getting worse out in the bays. We're growing oysters now and we're solving the problem now," he said.

The same area of Mashpee River is closed during the summer months because of bacterial pollution. The bacteria is killed off during the winter months, making the oysters safe to eat, according to York.

His goal is to harvest a million oysters or more every year, which he says would lead to 10 percent of the overall nitrogen cleanup needed.

With a million oyster seeds planted last summer, and another million in the works for this year, York is hoping to realize his goal sooner rather than later.

"We're actually saving the bays with oysters," he said.

State tests of the water quality proved the beds were clean before they opened this year. Now those with town permits and Mashpee Wampanoag tribal IDs are free to fill up their buckets and bring home a fresh meal.


Mashpee resident Peter Jacobson, 45, brought his father down to the landing to dig through the trays last week. The father and son seek out heavy oysters with thick shells to take home.

"They're tough to get, so this is really kind of nice," the younger Jacobson said.

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