

Oysters should love that dirty water

The Boston Globe

Mollusks' return may help clean Charles River

By James O'Brien, Globe Correspondent | October 26, 2008

They were trundled north from their nursery in Duxbury - 150,000 of them rattling in crates - to the banks of the Charles River with a singular purpose: to eat sewage.

Measuring roughly an inch from tip to tip of their rose-and-ash gray shells, these oysters are the vanguard of a water pollution cleanup project launched yesterday by the Massachusetts Oyster Project.

There was a time, up through the 20th century, when the oysters grew as long as a man's shoe and were plentiful in the Charles, Neponset, and Mystic rivers, according to Charlestown resident and chief project organizer Andrew T. Jay. However, pollution, changing water salinity, and overharvesting killed off those oysters, decades ago.

Yesterday's colony of seed oysters should grow at an inch per year. If they're lucky, they'll live as long as a decade. As it eats, an oyster can filter 30 gallons of water per day, Jay said. The shellfish potentially stand to process 3 million gallons of sewage-tainted liquid every 24 hours, slowly purifying the Charles.

On Constitution Marina, in the lee of the Charlestown Bridge, approximately 50 children and adults gathered under cloudy skies yesterday afternoon on the wooden docks to watch, some to help.

The children, accompanied by a few adults, piled onto boats and tossed the oysters overboard.

Standing next to the stacked crates of shellfish before he took off, 12-year-old Max Runci of Charlestown said the only time he'd previously held an oyster in his hand was in a restaurant.

"Only Wellfleets," he said of his preferred variety of dinner oyster. His friends, he said, thought his contribution to a potential new generation of oysters in Boston "was really cool, and they wished they could come do it, too."

The oysters looked like gold coins as they struck the brown water of the Charles, hitting with soft plips and splashes that kicked up clusters of bubbles.

"Bon voyage," 10-year-old Gus Viveiros of Charlestown said from the boat on which he worked. He chucked armfuls into the drink, the blue rubber of his oyster gloves turning black with slime from the briny buckets.

"See you at the bottom," he said after them.

Jay said the mixture of saltwater and fresh water where the Charles River meets the Atlantic provides an environment where the mollusks have a chance to thrive.

"The big challenge with releasing oysters is not to put them in an area where there's too much silt," he said.

Oysters eat silt, in addition to the phytoplankton that drift in the currents. As they eat, they also ingest some of the bacteria and organic compounds contained in sewer overflow, which Jay said runs untreated into the Charles from houses and streets during heavy rains.

Because of the oysters' diet, the project also wanted to sow them in a place where it would be easy to keep the stock safe from people who might try harvesting the mollusks. Oysters that filter sewage have been found to contain salmonella and other harmful bacteria.

Jay pointed out the nearby police dock and lack of accessible shoreline. "At some point we will be putting up signage in multiple languages saying, 'Area Closed to Shellfishing.' "

The Massachusetts Oyster Project represents a promising model for New York, said Cathy Drew, executive director of the River Project, a lower Manhattan water-quality advocacy organization that has become a nexus of aquatic science and outreach.

Starting last spring, River Project member marine ecologist Jeffrey Levinton introduced small bags of oysters to New York Harbor and adjoining rivers, and is awaiting growth and mortality data. A project similar to the Boston plan is being directed by the City of New York, he said, for Jamaica Bay near John F. Kennedy International Airport.

"The question is whether you can go back to this wonderful time when there were plentiful oysters," said Levinton.

Introducing oyster colonies is a risky proposition, given that water quality in rivers like the Hudson and Charles fluctuates, he said, and that oyster larvae have a tendency to migrate out to sea via connected harbors.

J. Michael Hickey, chief marine fisheries biologist at the state Division of Marine Fisheries, was on hand yesterday to see the oysters off. He said he was optimistic that the colony - the same kind of Eastern oysters native to the Charles in times past - would take.

Divers will monitor the Charles River colony in coming months to chart their growth, Jay said, and compare it with a control group of seed oysters kept in a cage off the marina.

"Our hope is the oysters will be large enough to reproduce next summer," Jay said.

And while the group watches for a successful Charles River colony, it is already planning the next river oyster drop. The Massachusetts Oyster Project has applied to the Massachusetts Environmental Trust for a grant to bring 100,000 oysters to the Lower Mystic River and to the tributary Chelsea Creek. A Neponset River site is also under consideration. ■