



Oysters on cleanup duty in river

By **STEPHANIE VOSK**
STAFF WRITER

Could a million oysters save the Mashpee River from being choked to death?

The town's shellfish constable thinks so. Rick York has launched a plan to use the bivalves to put a dent in the heavy nitrogen levels that have plagued the river's ecosystem.

"This oyster project is a really big deal," York said. "If we can clean up that much nitrogen with oysters, that's 10 percent of the cleanup."

The town placed a million tiny oyster seeds in the Mashpee River this summer, and the seeds have grown to about 1 to 2 inches each so far.

York is falling back on an old trick he used while working as a researcher at the University of Hawaii; he wants the oysters to eat nitrogen-rich microscopic plants. By pulling in the nitrogen for themselves, the oysters remove it from the water.

While the method is not always successful, the low salinity of the river combined with water free of predators makes success more likely, York said.

The Cape Cod Cooperative Extension has been trying this method in Orleans over the last couple of years. Oysters are being harvested in a small part of Pleasant Bay in hope of clearing out some of the nitrogen and creating a viable oyster bed, said Bill Walton, aquaculture specialist for the extension.

Using oysters is also a cheap fix for what could be an expensive problem, said Hauke Kite-Powell, a research specialist in the Marine Policy Center at the Woods Hole Oceanographic Institution. The oysters are an expensive commodity, and can be sold off when they reach about three years old, he said.

Researchers at WHOI have used oysters to help clear nitrogen out of a piece of the Waquoit Bay for the last couple of years, Kite-Powell said.

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

An excess of nitrogen in both salt and fresh waters can cause a buildup of algae, York said. Algae use oxygen to survive and high levels of algae can suck all of the oxygen out of a body of water at night, killing the fish that live in it.

As the algae eventually sink to the bottom, they decomposes and make "muck," York said.

When shellfish settle in the muck, they are smothered, causing shellfish beds to disappear.

While Mashpee works its own solution, the state has also undertaken two programs to help with the general cleanup of coastal waters.

The state Department of Environmental Protection is in the process of working on a \$12.5 million project to test all the coastal bays and harbors in the state and recommend how much cleanup is needed.

The department has found that Mashpee would need to remove 500 kilograms, or 1,100 pounds, of nitrogen from the river to keep it clean.

Stephanie Vosk can be reached at svosk@capecodonline.com.

(Published: September 20, 2006)

Copyright © Cape Cod Times. All rights reserved.