

Project hopes to restore bay oyster population

By Mark Prado IJ reporter

Monday, February 07, 2005 - Emerging from the knee-deep, oozing mud of Richardson Bay, fishery ecologist Michael McGowan gripped a bucket of shells and smiled.

"This is good," McGowan said excitedly, looking into the bucket and seeing tawny brown Olympia oysters clinging to the shells.

McGowan and his crew dropped pallets of oyster shells in Richardson Bay last spring in hopes of boosting the native mollusk population that has dwindled over the years. Olympia larvae need a hard surface to grow, and the old shells provide that womb.

Last week, under the shadow of the historic Lyford House in Tiburon, he began pulling out the shells and saw some encouraging results.

"This is fantastic," he said as he washed mud and sediment away from the shells to reveal the Olympias.

Of the 100 shells he looked at, 18 had Olympias attached. He didn't expect the percentage to be that high.

The tiny Olympia oyster, which measures no more than 1/2 inch in diameter, once was plentiful in the bay, acting as a water purifier as well as habitat and food for a variety of fish species.

When settlers arrived during the Gold Rush, the oysters were just about harvested out of existence as they became a food source for a burgeoning population. Also, mining operations in the Sierra during the same era sent sediment down into the bay, covering the hard surfaces the oyster larvae needs to grow on.

"If we provide more substrate, more suitable surface for oyster larvae to settle on, their populations could increase," McGowan said. "Our hope is to build their population to critical mass so that it won't be necessary to intervene like this. We won't be engineering a solution, but the oysters will be able to reproduce themselves and maintain a high population."

Last spring, pallets with six bags of oyster shells stacked into a shape of a pyramid were dropped into six feet of water at 12 spots in Richardson Bay - including near Blackie's Pasture and Tiburon Audubon Center.

"We were surprised to find it has been so successful so quickly," said Michele Pearson, executive director of the Tiburon Center, which is sponsoring the project. "It's clear nature is doing what it is supposed to be doing."

Small pockets of the mollusks - the only native Bay Area oyster - remain in the bay, but at nowhere near the population of a century ago. The oysters are marked by irregularly shaped, flat and fluted shells. They are more abundant in Washington, where the mini-mollusk derives its name.

The \$40,000 project is being fueled in large part by the National Oceanic and Atmospheric Administration, which gave a \$30,000 grant.

Aside from re-establishing the population, other benefits include cleaner water. One of the oysters' key functions is their ability to act as mini-filters. Although small, they can take in large quantities of sea water - as much as 20 to 30 quarts an hour - and extract pollutants and algae-causing plankton.

The oysters also help species in other ways. Some fish, such as the goby, lay their eggs inside vacant oyster shells. When those shells are not in abundance, it is more difficult for some species to reproduce, officials said. For others, such as angel sharks and seabirds, the oysters make up part of their diets.

Now McGowan hopes this project will help bring them back.

"This shows if you put out shells out there, they will come," he said.

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