## No easy answers to restore bay's oyster population

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Millions are being spent to restore the bay's oyster population even as the bivalves' population remains at historic lows.

From the time of the Civil War to the mid-1980s, a significant portion of all oysters eaten in America came from the Chesapeake Bay, powering a booming industry on the waters and sometimes even a violent one. From the mid-1800s to the mid-1900s, "oyster wars" pitted authorities and legal watermen from Maryland and Virginia against oyster pirates.

The oysters weren't just for eating — experts say that at their peak, oysters could filter all the water in the bay in one week.

But since 1994, the bay's oyster population has sat at less than one percent of historic levels, according to Maryland's Department of Natural Resources. Over the past 30 years, what the state calls "suitable oyster habitats" have <u>declined 80 percent from 200,000 to 36,000 acres</u>.

An air of nostalgia remains on the walls of restaurants like Harris Crab House on Kent Island, where old oyster cans line the shelves. And one can briefly escape the harsh reality that Maryland's oyster harvest has fallen from about 1.5 million bushels to 142,000 bushels by visiting eateries like Annapolis' Rams Head Tavern, where on most Tuesday's oysters come free with any purchase during happy hour.

Enter the effort worth millions.

Maryland alone spent \$24.4 million from 1994 to 2007 on oyster recovery efforts, according to a 2007 report from the Maryland Oyster Advisory Commission. The state and federal government combined invested \$39.7 million during that time.

From 2002 to 2006, the report said the state and federal government invested an average of \$5 million annually on "in-the-water oyster recovery (sanctuary and public fishery) activities."

To spur an oyster comeback in 1994, DNR teamed with the University of Maryland Center for Environmental Science and the National Oceanic and Atmosphere Administration to form the nonprofit Oyster Recovery Partnership.

ORP is now the largest oyster restoration nonprofit in the watershed. It touts its nearly two decades worth of work: "Nearly 4 billion oysters have been planted on 1,500 acres of oyster reefs and approximately 1,200 tons of shell have been recycled to provide homes for new oysters."

But despite the massive effort planting oysters, the pay-off hasn't been quick.

Maryland's oyster harvest in 1994-95 was 165,000 bushels. Maryland's oyster harvest in 2006-07 was 165,000 bushels. Maryland's oyster harvest in 2011-2012 was 137,317 bushels.

Using another gauge to measure native oyster abundance, oyster biomass, the Chesapeake Bay Program's website offered this analysis for trends between 1994 and 2008: "There is no statistically discernible trend ... oyster abundance remains at a very low level."

Howard Ernst, a Naval Academy professor and author of "Chesapeake Bay Blues" and "Fight for the Bay," said he believes the state should place a moratorium on oyster harvesting until there are significant signs of improvement.

"They should be sued for animal cruelty, putting oysters in waters that can't sustain them," Ernst says. "We spend x millions putting oysters in the Bay while allowing watermen to take them out of the water."

Despite sobering results, oyster restoration efforts have not slowed.

The Oyster Recovery Partnership in fiscal years 2010 and 2011 alone received \$9.3 million in government grants, according to an audit posted to its website. Private grants and contributions total around \$370,000 in the same two years.

DNR plans to spend \$10 million more in fiscal 2014. Part of that will go to the \$21 million the state is anteing up in a \$32 million effort over the next three to five years to plant oyster spat over hundreds of acres of river bottom at Harris Creek, a tributary of the Choptank River that has shown signs of hope.

Of the oyster restoration projects attempted, many showed signs of success before falling victim to disease, poor water quality, or illegal harvest.

But officials argue they now have a formula for success at Harris Creek.

A 2009 DNR survey identified areas best suited to support oysters. Based on good water quality and potential oyster larval retention, Harris Creek was chosen for the project by DNR, the U.S. Army Corps of Engineers and NOAA. There, they are spreading shell, rebuilding reefs and planting hatchery-reared spat in hopes of turning back time in one nook of the Bay.

Michael Naylor, director of the DNR Shellfish Program, said along with Harris Creek's favorable water quality, its shape also suggests oyster larval retention may be high, allowing reefs to reseed themselves.

Gov. Martin O'Malley admitted the state "probably wasted time" on the examination of the Asian oyster.

Asian oysters were proven to be fast-growing and resistant to some diseases killing native bay oysters. So Maryland, Virginia and federal agencies looked into seeding the Chesapeake Bay with Asian oysters for a time.

A \$17 million study was launched in 2004, funded by the two states and federal agencies, to settle the debate about the environmental risks of putting non-native oysters in the bay. The study looked at seeding the bay with billions of Asian oysters and growing sterilized Asian oysters in the bay for commercial use. It also evaluated options for stepping up efforts to restore native oysters — including a bay-wide moratorium on harvesting them.

But after four years of research, the study made no recommendation about what strategy would be best for the bay. Officials later decided against introducing Asian oysters as a way to restore the bay's degraded oyster population, citing "unacceptable ecological risks."

O'Malley said the state also should have turned to the practice of oyster aquaculture sooner.

Generations of Chesapeake watermen harvested wild oysters from grounds scattered around the bay.

Of the \$39.7 million invested by Maryland and the feds from 1994 to 2007, 77 percent was focused on industry recovery efforts while only 23 percent supported ecological restoration, according to the Oyster Advisory Commission's 2007 report.

But under O'Malley's plan, the state started encouraging watermen to start businesses in oyster aquaculture, the practice of growing oysters at fixed locations in the Bay.

"That would have made the dollars we invested in the replanting of the beds far more impactful over the long-term plan, instead of just to scrape them up and harvest them," O'Malley said.

The 2011-2012 oyster harvest was down. But Maryland has had harvests exceeding 100,000 bushels for six of the last seven years, according to the state's 2012 fall survey. Meanwhile, oyster biomass was up for the second consecutive year, reaching its highest point since 1999.

Still, other opinions remain.

Del. Ron George, R-Arnold, supports the oyster restoration effort. But he suggests the state award money to riverkeepers rather than other nonprofits that pay for another group or employ people to grow oyster beds.

Other skeptics believe the money hasn't yielded appropriate results.

"If this were a corporate enterprise, you would de-fund the nonperforming assets," says Fred Tutman, Patuxent Riverkeeper.

http://www.capitalgazette.com/news/environment/no-easy-answers-to-restore-bay-s-oyster-population/article 7dfac9ec-31a4-5cc2-b479-397cabaa0ff7.html?mode=print