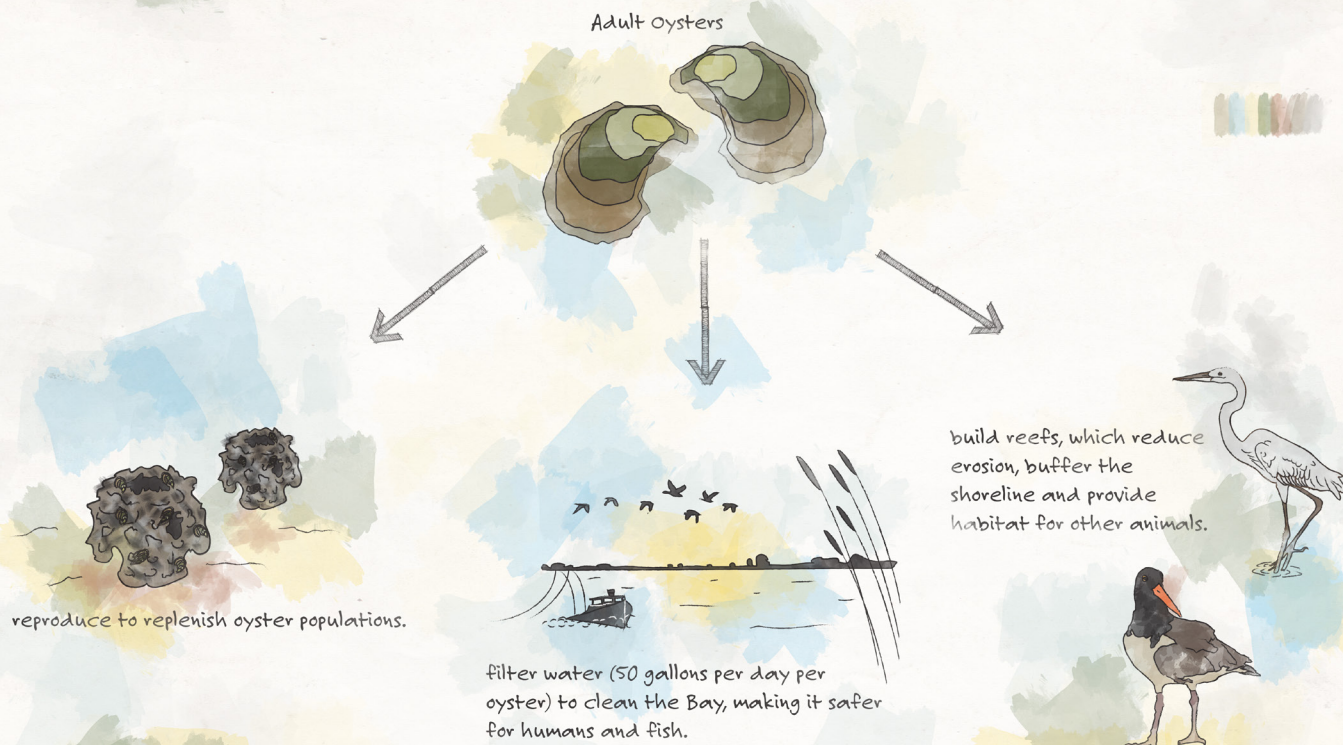


Illegal Harvesting of Oysters in Maryland's Chesapeake Bay

Published in:

The Journal of Shellfish Research
Fall 2012

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How Oysters Benefit Human Health and the Environment

A mere ten thousand years old, the Chesapeake Bay is not only one of the world's largest estuaries, but also a habitat in which fish and shellfish have flourished. The Bay's name comes from the Algonquin "Chesipiook," which means "Great Shellfish Bay," and it was here that the Eastern oyster, *Crassostrea virginica*, thrived.

In addition to being an excellent source of protein and calcium for those who depended on it, *C. virginica* benefitted Maryland's economy, as well, with the oyster industry peaking in the 1880s. During this heyday, the state shipped 15 million bushels of oysters a year, compared to current rates of about half a million bushels.

The Bay's oyster population has seen steady decline, due to factors such as overfishing, disease, and environmental degradation—and also illegal harvesting by fishermen. The diminishing oyster population is worrisome, but Maryland is trying to rebuild its oyster population by increasing the number of oyster beds dedicated as state-protected oyster sanctuaries.

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Key Findings

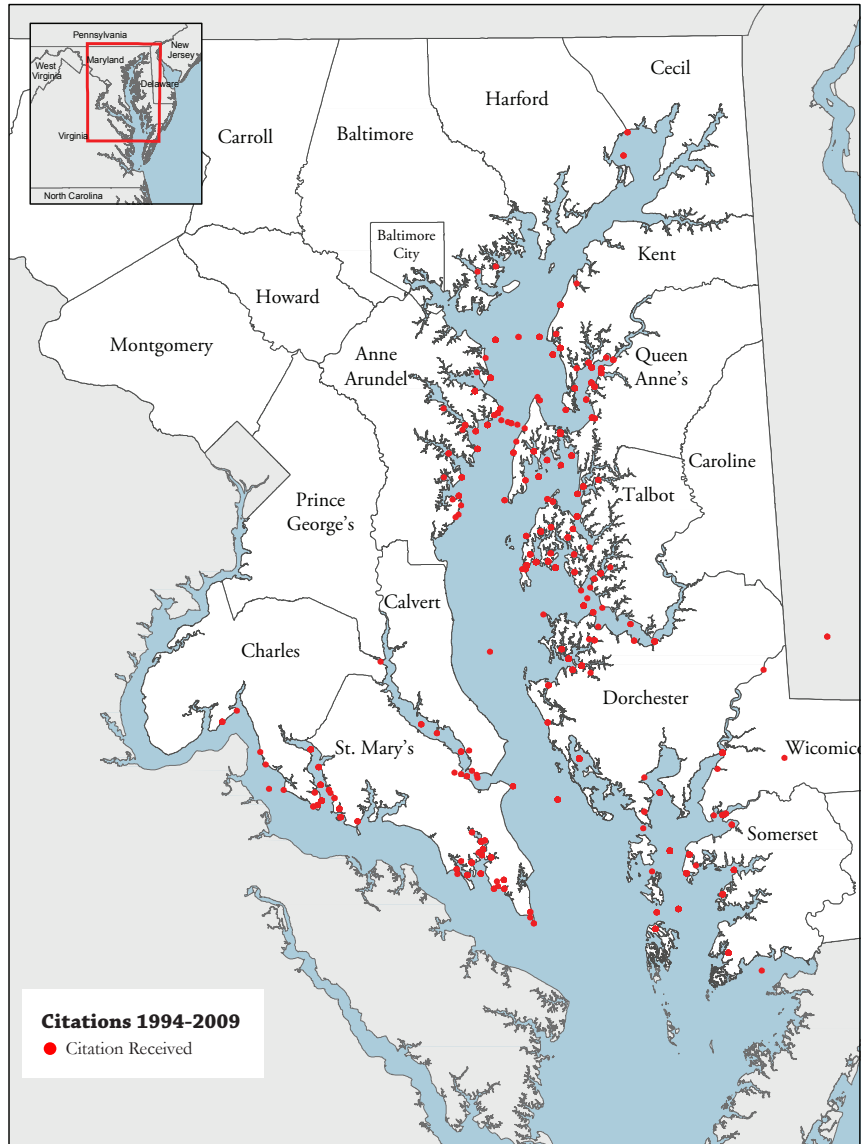
- Of all the citations recorded over a fifty-year period, the most common offense (75 percent of all citations) was possession of undersized or uncultured oysters.
- Nine percent of citations were given to fishermen for harvesting in illegal or polluted areas.
- A 2008 review by the Maryland Attorney General's Office found that 43 percent of all licensed commercial fishermen at that time had received citations.

Public Health Concerns

- The harvesting of undersized (juvenile) oysters impedes the replenishment of oyster populations, and therefore threatens food supply.
- The harvesting of oysters from polluted areas could prove to be a risk for contamination of humans who eat the unsafe oysters.
- By depleting the oyster population, the Bay loses the benefit of oysters filtering the water, and pollution could increase.
- The full scope of negative impacts of illegal harvesting are still not known.

Who We Are

Based within the Bloomberg School of Public Health, The Johns Hopkins Center for a Livable Future (CLF) is an academic center that conducts and promotes research and communicates information about the complex inter-relationships among food production, diet, environment and human health.



Study Summary

Researchers analyzed fifty years' worth of historical data about illegal oyster harvesting citations in the Maryland portion of the Chesapeake Bay.

The study found a total of 5,282 citations in the fifty-year period, and these findings (some of which are illustrated on the map, above) helped researchers understand the magnitude of the crime's prevalence and locate strategies to target offenders.

Strategies for Action

- Citizens can urge their elected officials to support the designation of more oyster sanctuaries.
- Citizens can urge their elected officials to support better protection of existing sanctuaries.
- Citizens can support stricter penalties for fishermen who harvest illegally.

Abstract available at:

<http://www.bioone.org/doi/abs/10.2983/035.031.0301>