

Study analyzes half-century of oyster poaching enforcement

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Nearly 5,300 citations for illegal oyster harvesting (poaching) were issued by Maryland's Marine Police in the Chesapeake Bay between 1959 and 2010, according to a new study led by researchers at the Johns Hopkins Bloomberg School of Public Health and the University of Maryland. A review of the state's enforcement and judicial records shows more poaching citations were issued in years when oyster harvesting employment dropped compared to years when employment was high, which the authors indicate may be explained by the increased economic pressure to harvest illegally during lean harvesting years. Almost three out of four poaching citations were issued for harvesting unculled or undersized oysters, which harms the oysters' ability to grow and reproduce, and therefore the population's recovery in the Bay.

The authors of the study say their findings can help state officials target their future monitoring and enforcement efforts, and they call for greater vigilance and stronger collaboration to address the poaching issue. Oyster harvesting season in Maryland begins October 1.

The study was a collaboration among the Johns Hopkins Center for a Livable Future, the University of Maryland's Department of Biology, and the Maryland Department of Natural Resources. Its results appear in the current issue of the *Journal of Shellfish Research*.

When poaching citation cases were brought before Maryland courts, guilty verdicts were issued for about four out of five citations. The average fine meted out was \$179 in the 2000s, which is equal to the

harvest value of 36 pounds of oyster meat. Modern oyster skiffs with dredges can harvest more than twice that amount (77 pounds) per day, which creates an "economic imbalance between the cost of getting caught for a violation and the potential [economic benefit](#) of harvesting a scarce natural resource," the authors assert. They also noted that the Maryland General Assembly has toughened laws related to oyster poaching since 2009, and fines have been increased.

Oysters are considered an important part of the Bay's ecosystem, in part because they filter the water, removing sediment and nitrogen, for example, and also because they help provide habitat for fish and crabs. By making the water clearer, oysters allow more sunlight to reach submerged aquatic grasses. So, illegal harvesting has negative ecological consequences. It also can have public health impacts, as some of the poaching happens on reefs that have been closed for harvesting because oysters in the area are unfit for human consumption. Lastly, poaching cuts into the effectiveness of government-funded oyster restoration programs, meaning that tax dollars go to waste.

"If the newly created oyster sanctuaries that span 24 percent of Maryland's [Chesapeake Bay](#) oyster habitat are to succeed, targeted state enforcement, self-policing by oystermen, and implementation of recent state policies for oyster [poaching](#) are needed to preserve the investments made in oyster restoration and to improve the resilience of Maryland [oyster](#) populations," the report concludes.

Provided by Johns Hopkins University Bloomberg School of Public Health

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