



## Chesapeake Bay Field Office

# Oyster Restoration in Chesapeake Bay

### Facts to consider

#### Native Oyster

- Commercial landings of native oysters (*Crassostrea virginica*) in the Chesapeake Bay are less than 1% of historic levels. The collapse of the fishery can be attributed to centuries of overharvest, habitat degradation, and, most recently, the diseases MSX and Dermo.
- Maryland and Virginia have not conducted a formal stock assessment of the native oyster to evaluate harvest management options, such as temporary harvest restrictions or closure of the fishery, to achieve a sustainable population. Native oysters in Delaware and New Jersey have faced similar disease pressures but harvest in these states is now regulated successfully based on annual population estimates and corresponding harvest limits.
- Restoration efforts for the native oyster are just now emerging from the experimentation phase to an accelerated, large-scale implementation phase with increased Congressional funding and the best technologies available. More time is needed to evaluate the success of native oyster restoration efforts.
- Recently, the number of native oysters in Chesapeake Bay was estimated at approximately one billion, indicating that although they are severely stressed, there are still self-sustaining populations in parts of the Bay.

#### Non-native Oyster

- State natural resource officials in Maryland and Virginia have proposed to introduce an oyster native to China (*Crassostrea ariakensis*) to the Chesapeake Bay, and the Atlantic Coastal Bays, as a way to restore the economic and ecological role that oysters once fulfilled in the region.\*
- Experimental trials in Virginia waters of the Bay have shown that this non-native species grows quickly and is more tolerant of MSX and Dermo. However, scientists recently have found a potentially fatal parasite, *Bonamia*, in a batch of these experimental oysters being raised in North Carolina waters.
- Resource managers cannot currently predict the effects that this oyster may have on native species in the Bay and along the Atlantic Coast because little biological information is available for this species. The states want to introduce the non-native oyster in approximately one year. However, more time will be needed to conduct the studies necessary to make a management decision based on sound science.
- If introduced to the Chesapeake Bay and Coastal Bays, this non-native oyster is likely to spread via human introduction, ballast water release, and/or larval transport to areas outside the Bay. Spread and establishment of this species could affect commercially sustainable populations of native oyster that exist in other parts of the Atlantic Coast and Gulf Coast.



Asian oyster, *Crassostrea ariakensis*  
Photo courtesy Chesapeake Bay Program

Reversing the decline of the Bay's oyster population is likely to take decades with any species. As stated in the National Research Consortium/ National Academy of Sciences report on this issue: "The failure of a succession of corrective actions to reverse the decline in the fishery...each one of which was once thought to be the solution to the Bay's problems, is testimony to the absence of easy answers and quick fixes."

\*Note: An Environmental Impact Statement (EIS) led by the Army Corps of Engineers is being prepared to evaluate the states' proposal, as well as other alternatives for restoring oysters in the Bay. The U.S. Fish and Wildlife Service is a cooperating agency in the development of this EIS because we believe that any non-native species such as the Asian oyster should not be introduced to the Chesapeake Bay (or any other area) until it is scientifically demonstrated there is minimal risk of negative effects to native species and their habitats. In addition, the Service is mandated under the Nonindigenous Aquatic Nuisance Prevention and Control Act of 1990 (amended as the National Invasive Species Act of 1996) to prevent and control the dispersal of aquatic nuisance species.

Information throughout the development of the EIS can be accessed on our website.  
<http://www.fws.gov/r5cbfo/Asianoyster.htm>

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