

Predators of Oyster Gardens and Other Threats

TOGA

Tidewater Oyster Gardeners Association

<http://www.oystergardener.org>

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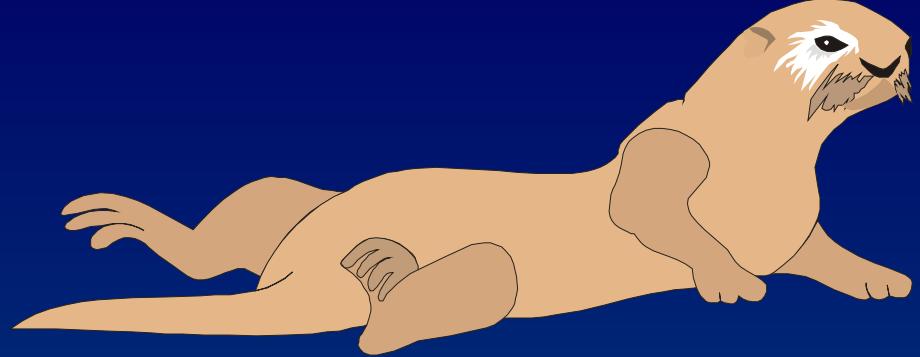
CRABS: Crabs can attack oysters from seed size (6 to 12mm) to market size.



Crab damage to oysters



Green crab



OTTERS AND RACCOONS: These animals will use oysters as a food source.



WHELKS AND OYSTER DRILLS: These gastropods will attack all sizes of oysters.

Knobbed whelk



Oyster drill



HUMANS: This animal will remove and consume oysters of all sizes. Also known to pollute garden site.



OTHER VERTEBRATES: Other vertebrates (rays, fish and birds) will attack and consume oysters in the wild. Few will bother the oyster gardener, because the oysters generally are grown in cages that protect them.



Cownosed ray



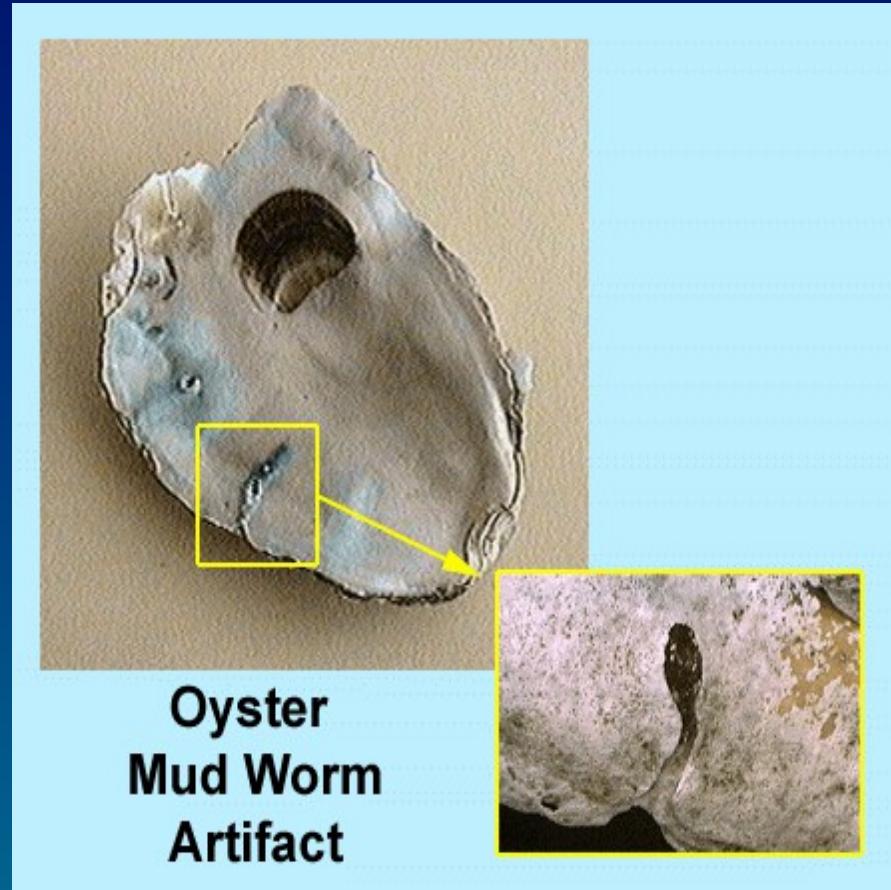
© Photo courtesy of Virginia Institute of Marine Science

Toadfish



Osprey

WORMS: *Polydora*, while not consuming the oyster, can cause mud blisters on the shell interior. These blisters are unsightly and can break during the shucking process, releasing mud into the oyster flesh and liquor.



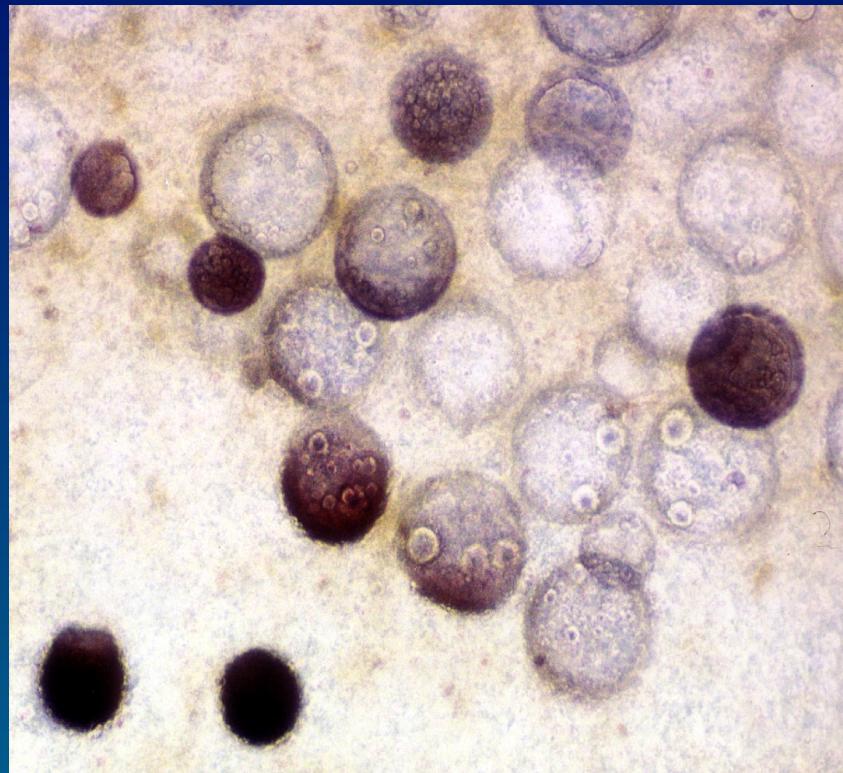
Oyster
Mud Worm
Artifact

FUNGUS: A fungus, which causes a condition known as “foot disease,” can form hard shell protrusions into the base of the adductor muscle. It is unclear if this can directly cause mortalities in Virginia oysters, but it will definitely cause difficulties during the shucking process.



Examples of fungus, or “foot disease,” on oyster shells. (red arrows)

DISEASES: In the Chesapeake Bay, most of the oyster gardener's losses will be due to MSX (*Haplosporidium nelsoni*) and Dermo (*Perkinsus marinus*). Seed selection, rate of growth and good hygiene are the only defense the oyster gardener has. Data currently being collected by VIMS may show which specific procedure or seed improves the survival to market size oysters.



Perkinsus marinus (Dermo) in oyster tissue.

Control

Routine inspection of the integrity of your oyster growing container is important to prevent the entry of larger oyster predators. At the same time, any predators that have entered your growing container must be removed. Predator removal is especially important when oysters are small.



Control

Periodic “dipping” of your oysters in a brine solution with a salinity over 70 parts per thousand (twice that of open ocean water) will help reduce the incidence of *Polydora* infestations. This is especially true during the warmer months. A minimum of 15-minutes in the brine dip, followed by air drying is recommended. It will also have the added advantage of helping to maintain a clean outer oyster shell.



Control



Unfortunately, there is no control for the diseases, other than starting with good healthy seed, from a disease-resistant stock.

