



Marylanders Grow Oysters

Citizens working to restore the Chesapeake Bay

Martin O'Malley, Governor



Dear Marylander:

Thank you for agreeing to be part of our Marylanders Grow Oysters project, an exciting way to create and develop a living, diverse, oyster reef community. Through your action and commitment, you are providing an important head start during the first year of life for these vulnerable oysters until they are large enough to be planted on a local sanctuary.

Not only will more oysters be placed in the Chesapeake Bay as a result of your efforts, but rejuvenated oyster reefs will naturally become vital underwater ecosystems for a rich diversity of aquatic life.

Working together, we can make real our vision for bringing about a cleaner, greener, more sustainable future all of us prefer – both for ourselves, and for future generations.

Good luck and thank you again for working to improve the health of the Chesapeake Bay and its tributaries, and to set a vital example of stewardship for our fellow Marylanders.

Sincerely,

Martin O'Malley, Governor

Taking Care of Your Oysters

Hanging your Cages

Cages should be tied off about one foot below the surface of the water at low tide. The objective is to keep the oysters high up in the water column where the supply of plankton and oxygen is plentiful, without risking exposure to freezing air temperatures.

In winter, your cages must be lowered to just above the river bottom to prevent exposure to freezing air temperatures during extreme low tides or storms. While oysters exposed to freezing air temperatures will die, they will remain healthy in cold water, even if completely encased in ice. **For this reason it is essential that oysters remain underwater whenever there is a chance of freezing air temperatures.** You may want to consider moving your cages to a deeper area of your dock for the winter if there is any chance the water depth will fall below the one-foot level.

During warmer months, your cage can be raised closer to the water's surface.

Care & Maintenance

Your cages and oysters need minimal regular care to control algae and barnacle growth and silt build up. For optimal growth they should be cleaned once a week by simply pulling the cages up and down in the water a few times.

If you observe fouling organisms growing on the cage and/or oysters, you will need to lightly scrub the cage with a brush to remove build up and rinse with a hose. (Left uncontrolled the fouling organisms will decrease water flow, which can slow the

growth of the oysters.)

To further control fouling, the cage (with the oysters in it) can be left out of the water for up to two hours, during which time the fouling organisms will dry out and die. This can be done up to once a week during warmer months, however, **the oysters should not be exposed to heat or direct sunlight for longer than three hours or they may die.**

Once you've finished cleaning the cage, redistribute the oysters evenly in the cage and re-hang from your pier.

If the oysters sit too long without a rinse or jostle they may begin to grow through the wire mesh of the cage; it then becomes difficult to remove them without breaking the shell and damaging or killing the oyster. Frequent cleaning will help prevent this.

Finally, during the cold winter months, the oysters will become dormant and no cleaning or rinsing is necessary.





More About Oysters

Oysters are vegetarians.

They eat algae -- microscopic plants that are rich in nutrients. The algae is filtered from the water by their gills. Mucous on the gills trap the algae. Special cilia on the gills move the trapped algae to the oyster's mouth.

Oysters reproduce in summer.

Larvae float in the water for about 10-18 days, then settle to clean, hard surfaces on the bottom and attach. After attaching they develop into oysters and never move again.

Newly attached oysters are called spat.

Spat are oysters less than 1 year old. Oyster spat require a hard clean surface on which to attach. While oyster shells are preferred for spat settlement, spat can attach to many natural and man-made objects including clam shells, mussel shells, stones, sticks, pebbles, turtle shells (live turtles), bricks, concrete, bottles, boots, rubber gloves, soda cans, pipes, bikes, cars, bulkheads and pilings. Larvae that settle on mud or sand will die.

Oysters change sex.

Young oysters are mostly male. At 2 years old, most have changed to females. Older oysters are mostly females.

An oyster bar is a rich, diverse ecosystem.

Oysters provide habitat to many other creatures, making an oyster bar a living reef. Numerous attached organisms grow on the outside of oysters, such as mussels, barnacles, sponges, hydroids, amphipods, worms and bryozoans. These organisms attract fish and crabs.

Oysters grow about an inch a year; a 3-inch market oyster is about 3 years old.

They grow slower in lower salinity (about 1/2 an inch per year), and faster in higher salinity, sometimes reaching market size in 2 years.

A large oyster can filter up to 50 gallons of water per day during warm months.

A restoration site with 10 million oysters can filter about 500 million gallons per day. However, today's depressed oyster population has little, if any, affect on water quality.

The oyster population has been severely impacted by two diseases that kill oysters.

Although they are harmless to people who eat oysters, the diseases Dermo and MSX -- microscopic protozoan parasites -- have killed billions of oysters and degraded oyster bars.

Oyster restoration efforts underway in Maryland include:

Creating hard habitat to enhance reproduction and increase the oyster population; stocking sites with hatchery produced oysters when natural reproduction is low; closing areas to harvest to protect stocks; and regulating the fishery to limit harvest.

Please Don't Eat Your Oysters!

The goal of this project is to encourage citizens to act to contribute to the ecological health of the river. The oysters you grow will be planted in a sanctuary where a oyster reef community of fish, crabs and other organisms can develop. You may find that fishing over the reef is better than in other locations.

The Maryland Department of the Environment advises that oysters from this project not be eaten due to the potential presence of harmful pathogens in near-shore waters where the cages are kept. Shellfish are filter feeders. As they strain the water for algae they also trap disease-causing organisms that may exist near the pier. The oyster seafood industry is highly regulated, and deeper waters where oysters are harvested are carefully monitored to ensure that the seafood is safe for human consumption.

If you have any questions about this issue, please contact MDE at 410-537-3608.



Contact

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The Marylanders Grow Oysters Project was established by Governor Martin O'Malley, and is being managed by the Maryland Department of Natural Resources in conjunction with Talbot County, the Oyster Recovery Partnership and the University of Maryland Center for Environmental Science. The oyster cages for this project were produced by the Maryland Department of Public Safety and Correctional Services.