

Taking Care of Your Oysters

As oyster stewards the care you provide your young spat is crucial. The cages protect the spat against predation by blue crabs and burial in the muddy or sandy bottom, but you need to fully care for and protect the spat until it is time to locate them on an oyster sanctuary reef. Periodic cleaning and attention to how the cages are hanging from your pier will enhance oyster growth and survival.

Hanging your Cages

Cages should be tied off about one foot below the surface of the water at low tide: this will keep the oysters in the water and alive. If the tide drops lower than normal, brief exposure to the air is not an issue as long as the air temperature is above freezing. **In the winter it is essential that the oysters remain underwater whenever there is a chance of freezing air temperatures. Winter tides can drop very low** so careful observation is needed to make sure the oysters are always in the water - exposure to freezing air can kill the oysters. During warmer months, your cages can be exposed to the air for a few hours without harm.

Care & Maintenance

Your cages and oysters need minimal regular care to control algae and silt build up. Heavy algae growth on the cage wire can restrict water flow needed by the oysters. Silt on the shells can smother the young spat. For optimal growth, cleaning every two weeks is suggested - simply pull the cages up and down in the water a few times, like dunking a tea bag.

If you observe heavy fouling on the cage, you will need to rinse it with a garden hose or perhaps lightly scrub the cage with a brush to remove the build up. Left uncontrolled, heavy fouling can restrict water flow and reduce oyster growth.

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 intense sunlight for longer than two hours or they may die.

Once you've finished cleaning the cage, either by dunking or using a hose or drying out or a combination of the methods, re-hang the oysters 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 their young shells 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. But in the spring be sure to begin cleaning again.

Please Don't Eat Your Oysters!

The goal of this project is to make a contribution to the ecology of the river. The oysters you grow will be planted in a sanctuary where an 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 nearshore 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.

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.

Oyster larvae float in the water for about 10-18 days, then they settle to the bottom where they attach to a hard clean surface. After attaching they grow 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 other types of shells and even rip rap, bulkheads, stones and other hard surfaces. 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.

The small oysters in a cage can filter over 100 gallons per day. A restoration site with 10 million large oysters can filter about 500 million gallons per day. However, today's depressed oyster population has little, if any, effect on water quality because the population is so low relative to the vast size of the Chesapeake Bay.

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 hundreds of 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.

DNR Liaison for South River Watershed

Cindy Wallace, Program Coordinator
South River Federation
2830 Solomons Island Rd., Ste. B
Edgewater, MD 21037
410-224-3802 or 410-212-6814
cindy@southriverfederation.net

For additional information please contact:
The Maryland Department of Natural Resources
oysters@dnr.state.md.us
410.260.8259
Toll free in Maryland 1.877.620.8DNR
Press # then dial ext. 8259

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