

# Animals of the Oyster Garden

## Neighbors...

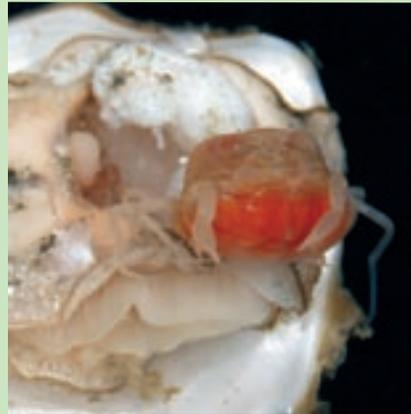


### Clam Worm

This harmless polychaete worm (*Nereis succinea*) is often seen crawling on top of cultured

oysters. It is 1 - 3 cm in length and looks similar to a centipede.

"Children love oyster gardening! Oysters attract a microcosm of aquatic life and teaching children about the ecology of oysters is one of the most gratifying aspects of oyster gardening." - Jackie Partin, Tidewater Oyster Gardeners Association.



### Pea Crabs

These tiny crabs (*Zaops ostreum*) live inside the oyster, feeding on algae and often bits of the oyster gill, but they generally cause little harm to the oyster.



### Grass Shrimp

This shrimp (*Paleomonetes pugio* and *P. vulgaris*) is the most common organism associated with oyster floats.

The Grass shrimp does not pose a threat to oysters.



### Hermit Crabs

Small, 1-2 cm, hermit crabs (genus *Pagurus*) are no threat to oysters and can help keep

your garden clean of fouling organisms that obstruct water flow. Larger hermit crabs are capable of eating smaller oysters.



### Periwinkle Snails

This snail (*Littorina littorea*) climbs up and down salt marsh grasses, where it feeds on small fouling organisms.

Adding a dozen or so periwinkles to your oyster garden will help keep it clean.



### Mud Crab

Several species of mud crabs (*Panopeus* and related genera) are very common to the oyster garden.

This small crab may feed on your small oysters but is also in search of other prey such as Hermit crabs and Periwinkle snails.



### Blennies, Gobies and Skillet Fish

Small fish, like blennies, gobies and skilletfish, love to visit oyster gardens where they can hide from their predators. Blennies nest in empty oyster shell.

Photo credits: Clam Worm & Pea Crab courtesy of Southeastern Regional Taxonomic Center/South Carolina Department of Natural Resources; Grass Shrimp courtesy of NOAA; Hermit Crabs, Striped Blennie, Barnacles, & Mussels by Tim George, Virginia Aquarium and Marine Science Center; Periwinkle Snail by Virginia Witmer; Mud Crab by K. Hill, Smithsonian Marine Station at Fort Pierce, FL; Blue Crab courtesy of Virginia Tidewater Oyster Gardeners Association; Boring Sponge, Mud Blister Worm and Flatworm courtesy of Virginia Institute of Marine Science.

# Competitors...

## Barnacles



These hard-shelled crustaceans that attach in large numbers and can compete with oysters for space and food. Barnacles can be eliminated by air exposure if identified early

enough, but large individuals must be physically removed with a scraper. Careful! Barnacles are very sharp.

## Mussels



Mussels (blue mussel, *Mytilus edulis*; ribbed mussel, *Guekensia demissa*; scorched mussel, *Brachiodontes* spp.) may settle in your garden. Blue mussels are the most common. They do not pose a threat unless

abundant and then they compete with oysters for food. Remove them when small by scraping.

## Sea Squirts

Sea Squirts or Grapes (*Molgula manhattensis*) are commonly found in higher salinity waters and may be controlled by scraping or aerial exposure for 1-2 hours.

# Predators...

## Blue Crab



(*Callinectes sapidus*) a voracious oyster predator, may settle in your garden mid to late summer, growing rapidly to a size capable of consuming your oysters. Regularly inspect floats and bags and remove any crabs.

## Mud Blister Worm



(*Polydora webstri*) blisters shell (look for yellowish sores in the adductor muscle). Infection rarely causes death and oysters are edible, but blisters may interfere with shucking. Outbreaks may be

reduced through a brine dip. See page 14 for details.

## Boring Sponge



(*Cliona celata*) filter feeders that burrow into and weaken shell (watch for a series of holes with light yellow sponge tissue visible), usually affects 3-4 yr. old oysters in high

(18+ppt) salinity. The sponge can generally be ignored, but severe infestation can make oysters unsightly and (rarely) cause mortality. A brine dip can control the sponge.

## Flatworms



(*Stylocus ellipticus*) prey on small oysters in late spring or early summer. No larger than 25 mm, this worm is green, yellowish brown, or salmon colored. Flatworms can be

devastating to a young oyster garden. The preferred treatment for flatworm is a brine dip. See page 14 for details.