

OYSTER FARMS &



THEIR INHABITANTS



North Carolina
Coastal Federation
Working Together for a Healthy Coast



Sea Grant
NORTH CAROLINA

NC  OYSTER TRAIL

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About this Guide

Gain valuable insights into the ecological significance and importance of these unique and productive coastal ecosystems.

Learn about the techniques employed by oyster farmers to nurture and harvest their precious crop.

Get a glimpse of some of the animals the estuarine habitat can support. From birds, to fish, to mammals. Keep your eyes peeled for a wild time out on the water!

Benefits of Oysters - 3Fs



Food

Oysters support a viable commercial and recreational fishery that is an important part of North Carolina's cultural heritage and economy. In 2023, the oyster farming industry contributed 14.6 million dollars and created 283 jobs to the state's economy.

Benefits of Oysters - 3Fs



Filtration

As filter feeders, oysters get their food by filtering the estuary's water. They eat algae and help to improve water clarity by filtering out sediments. An adult oyster is capable of filtering up to 50 gallons of water a day.

Benefits of Oysters - 3Fs



Fish Habitat

Oyster reefs provide essential habitats for a diverse collection of aquatic animals, including many important commercial and recreational fish species.

One healthy oyster reef can be home to more than 300 species of adult and juvenile organisms including southern flounder, shrimp, clams, and blue crabs. 6

Oyster Farming

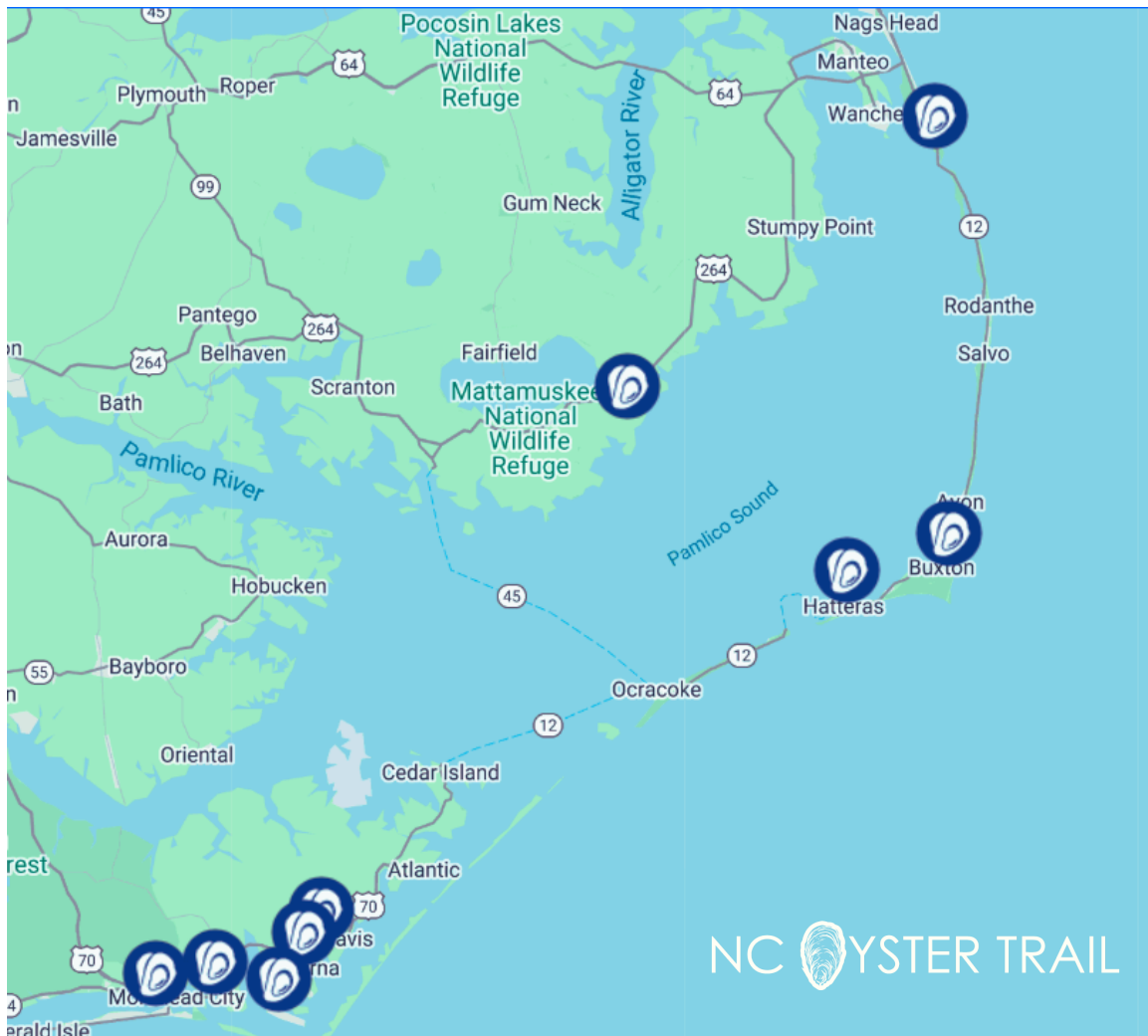
Oyster Farming, like farming on land, is the process of growing oysters for harvest and consumption. Many of the same benefits exist on oyster farms as wild reefs.



Oyster farmers obtain a lease from the state which allows them to place oysters and oyster growing gear in the sound for the purpose of cultivating oysters. The oysters are monitored regularly for growth and health; and the farms are monitored for water quality. These factors can change depending on the salinity, temperature, and predators.

Local Oyster Farms

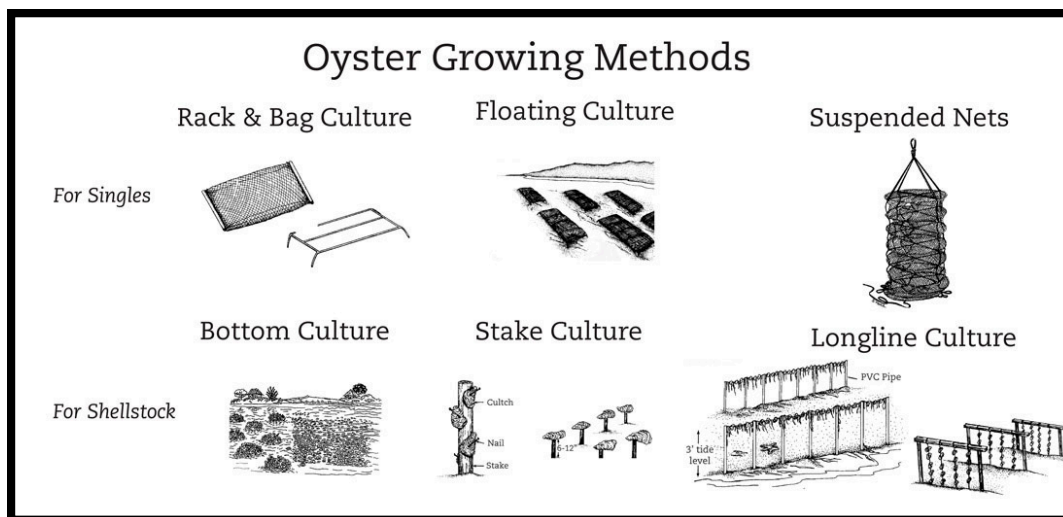
Map of oyster farms in the Pamlico Sound



Visit ncoystertrail.org to find a farm tour near you!

Methods of Cultivation

Oyster growers choose their preferred grow-out method based on a number of factors including their geography, potential predators, town regulations, and climate.



There are two main types of oyster grow-out: **bottom and off-bottom**. **Bottom culture**, or traditional bed culture, is a method of oyster farming that uses the bottom of the sound as the base for growing oysters. **Off-bottom** means the oyster is above the bottom of the sound.

Gear Type: Bottom Culture

Bottom Culture Pros:

- Efficient use of space
- Enhanced water circulation

Loose-on-Bottom



Bag-on-Rack



Bottom Culture Con:

- Limited scalability

Gear Type: Off-Bottom Culture

Off-Bottom Culture Pros:

- Protection from predators
- Efficient use of space
- Improved water flow

OysterGro



Floating
Bags



Flip Cages

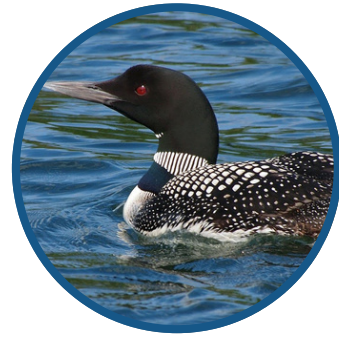


Off-Bottom Culture Cons:

- Initial investment costs
- Regular maintenance needed
- Higher risk factor in storms

Birds Near the Farm

Common loons are water birds, they only go ashore to mate and incubate eggs.



Common loon



Osprey

Ospreys have reversible outer toes that allow them to grasp with two toes in front and two behind.

Forster's terns winter farther north than any other North American tern species.



Forster's tern



Great black-backed gull

Young **great black-backed gulls** stay in the nesting territory until they learn to fly at about 7 weeks old.

Birds Near the Farm



Double-crested cormorant

Male and female **laughing gulls** usually build their nest together.



Laughing gull



Brown pelican

American oystercatchers are one of the only birds in their environment with the ability to open large mollusks such as clams and oysters.

Brown pelicans dive into the water to catch fish by using the force of their impact to stun their prey.



Oystercatcher

Fish on the Farm

Pinfish make loud croaking sounds during their spawning season.



Pinfish



Black drum

Black drum have 10-14 sensory chin barbels that they use to detect bottom-dwelling prey.

Spotted seatrout are not a species of trout, but are instead members of the drum family.



Spotted/Speckled seatrout



Sheepshead

Sheepshead have teeth that resemble a human's.

Mammals Near the Farm



Marsh rabbit

Marsh rabbits are solitary animals that only come together to breed or when food is plentiful.

River otters can hold their breath for up to eight minutes.



River otter



White-tailed deer

White-tailed deer are strong swimmers that can reach speeds of 15 miles per hour in the water.

Raccoons are opportunistic eaters and often wash their food before eating it.



Raccoon

Animals Around the Farm



Bottlenose dolphin

Bottlenose dolphins can propel themselves more than 15 feet in the air.

American eels are covered in a mucous layer that protects them from disease and reduces friction as they swim.



American eel



Eastern oyster

The **Eastern oysters** range extends across the Western Atlantic coast, from Canada to the Gulf of Mexican and South to Argentina.

Blue crabs have hind legs that look and function like paddles to help them swim.



Blue crab

Frequently Asked Questions

How long does it usually take for a farmed oyster to reach market size?

Generally, 12 months to 3 years, depending on the growing conditions.

What are the benefits of oyster farms?

Oyster farms can improve water quality by removing nitrogen from the watershed. They can also create habitats that support a higher abundance of aquatic animals.

Do restaurants usually serve farmed oysters?

Yes, about 95% of oysters served in US restaurants are farm-raised.

The North Carolina Coastal Federation

The North Carolina Coastal Federation is a member-supported 501(c)3 that focuses on protecting and restoring the North Carolina coast.



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