

Restoring North Carolina's Coast

NC COASTAL FEDERATION RESTORATION PROJECT:

OYSTER HABITAT

Since the early 1900's, North Carolina's Eastern Oyster (*Crassostrea virginica*) population has declined an estimated 90 percent. A variety of factors are to blame – habitat loss, pollution, diseases, and harvest pressure. So, why should we care? Because, believe it or not, our native oysters are one of the most important species of our estuaries.

Because of their role as a keystone species in the estuary environment, the health of the oyster population can be considered a reflection of the health of the ecosystem. With the loss of oysters and oyster habitat, other aquatic species have become stressed as well. If we can restore and protect the native oyster population, our coast will be healthy too.

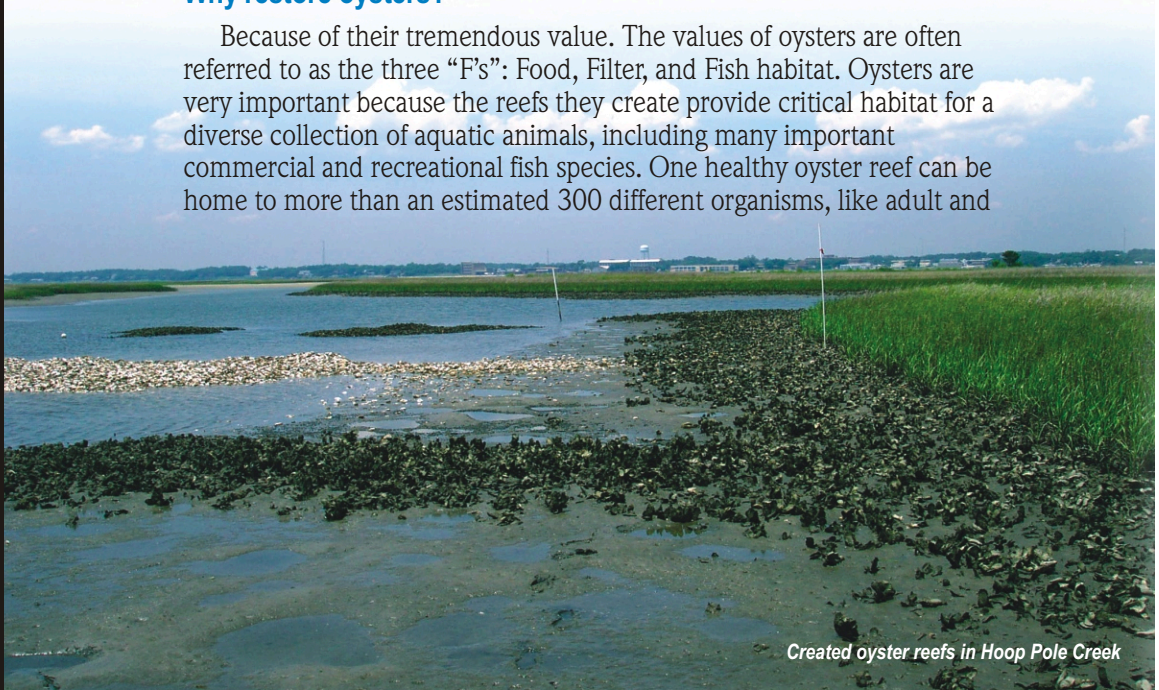


Recognizing this, the North Carolina Coastal Federation (NCCF) has helped to coordinate the Oyster Restoration and Protection Action Plan for North Carolina. This plan represents a coordinated, concerted and comprehensive effort over the next five years to protect and restore oysters in North Carolina. It includes a number of actions suggested by scientists, fishermen, policymakers and educators to protect and restore North

Carolina's oysters. With this in mind, NCCF has approached oyster restoration by pursuing three strategies, including public education and involvement, water quality protection and oyster habitat restoration.

Why restore oysters?

Because of their tremendous value. The values of oysters are often referred to as the three "F's": Food, Filter, and Fish habitat. Oysters are very important because the reefs they create provide critical habitat 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 an estimated 300 different organisms, like adult and



Created oyster reefs in Hoop Pole Creek

juvenile fishes, shrimp, clams and blue crabs. If the oysters are thriving, it is likely that other shellfish and finfish that spend some part of their lifecycle in the estuary are also doing well.

Not only do oysters hold economic value by providing a commercial and recreational oyster fishery, fish habitat, and food for the estuarine food chain and people, but they also filter the water of our sounds, bays and tidal creeks. Oysters are filter feeders, meaning they filter out sediment, nutrients and plankton from the water in our estuaries, thereby improving water quality. One adult oyster can filter between 25-50 gallons of water per day – so just think what a few hundred thousand could do! The final equation is very simple ... the more oysters there are, the cleaner the water, the more habitat for a variety of aquatic species, and the more seafood for us.

NCCF Restores and Creates Oyster Habitat

Since 1998, NCCF has been conducting oyster habitat restoration and creation projects along the central and southern coast. These continuing efforts have resulted in over seven acres of oyster habitat created or restored in four new oyster sanctuaries and management areas along the central and southern coast.

NCCF's efforts have focused on the building and seeding of oyster reefs at sites along the coast. Working with researchers, oyster growers and harvesters the restoration sites have been selected and the new reefs have been designed. In partnership with the NC Division of Marine Fisheries, over 30,000 bushels of oyster shell have been planted at the sites, forming the base of the new reefs. Seeding of the new reefs has been made possible by volunteers donating thousands of hours to fill over 4,000 shell bags and transport them to new reefs for seeding. The oyster shell bags have been set with oyster larvae at J&B Aquafood, a family-run shellfish business. When attached to the oyster shell bags and spread onto the newly laid shell base, these oyster larvae will help to jump-start the formation of the new reefs.

NCCF's oyster habitat restoration and creation projects have been made possible with the support of its partners, including NOAA's Community Habitat Restoration Program, FishAmerica Foundation, National Fish and Wildlife Foundation, Restore America's Estuaries, NC Sea Grant, NC Division of Marine Fisheries, NC Shellfish Sanitation Section, NC Division of Water Quality, the Albemarle-Pamlico National Estuarine Program, UNC-W and the NC Clean Water Management Trust Fund.



Reef seeding with juvenile oysters.



Spreading of oyster shells for new reef base.



Volunteers filling oyster shell bags.



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About the North Carolina Coastal Federation

The North Carolina Coastal Federation is the state's largest non-profit working to protect and restore coastal North Carolina. There are many exciting opportunities to get involved in restoration projects and help preserve our coastal environment. If you would like to support our efforts, please consider becoming an NCCF member. You also can learn about volunteer opportunities and other programs by checking out NCCF's website at www.nccoast.org, call 252-393-8185, or come by NCCF headquarters at 3609 Hwy 24 in Ocean, located between Morehead City and Swansboro.