THE HISTORY OF OYSTER MANAGEMENT OVER THE PAST CENTURY

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In 1822, the N.C. General Assembly passed the state’s first law to regulate commercial fishing: An Act to Prevent the Destruction of Oysters and for Other Purposes in this State.

- Restricted harvest gear to hand tongs
- Prohibited export of North Carolina oysters to other states
- Specified penalties for violations

There were no provisions for enforcement.

There was little commercial effort, anyway.
PRE-CIVIL WAR

• As transportation lines improved, with steamboat and railroad lines, North Carolina’s oyster industry grew.
• In 1858, the General Assembly passed the state’s first law that provided for granting people the right to use public water bottom for private oyster cultivation.
POST CIVIL WAR

• Renewed interest in oysters followed the War Between the States and Reconstruction.
• Laws were enacted setting a September through April commercial oyster season and allowing export to other states.
• By 1884, North Carolina oystermen were already extending harvest on oyster beds to their production limit.
• Federal officials advocated for private control of large tracts of oyster beds to increase productivity.
• The General Assembly created the first Shellfish Commission, the forerunner of the Marine Fisheries Commission.
OYSTERS WARS

• By the 1890s, Maryland and Virginia had greatly depleted the natural oyster beds in the Chesapeake Bay, causing Baltimore canneries to open oyster houses in North Carolina.
• With the oyster houses came the Chesapeake Bay fishermen, who introduced modern methods of oyster harvesting, including dredges.
• North Carolina residents were only allowed to dredge in the deeper waters of Pamlico and Roanoke sounds, but a loophole in the law allowed non-residents to dredge elsewhere.
• Rumors of serious conflicts (mostly unsubstantiated) and fear that these fishing methods would deplete North Carolina oyster beds led to a law prohibiting any harvest by non-residents.
  • The law was enforced by National Guard troops, and more than 300 non-resident vessels left.
  • Returning to hand-harvest-only management and limited dredging resulted in declines in oyster harvest and the closing of many of the canneries.
EARLY 20TH CENTURY

• In the latter 1800s and early 1900s, a series of laws were passed that reinstated a dredging season and defined areas where it was allowed.
• This led to an increase in landings and reopening of the canneries.
• Oyster landings reached the highest level on record in 1902 at 806,363 bushels and have steadily declined since then.
Annotated Oyster Landings 1880-2013

- Sail dredging began 1889
- 2.5" Size limit on rock oysters 1893
- 1893 Depression
- Hurricane damage 1899
- Shell planting began 1915
- World War I 1917-18
- Shellfish sanitation concerns 1924
- Great Depression 1929
- Power dredging began 1931
- 3" size limit on rock oysters 1932
- 1933 storm caused heavy habitat damage
- Heavy oyster mortality 1940
- World War II 1941-45
- Hurricane damage 1953-55
- 2.5" Size limit on coon oysters 1971
- Hurricane Ginger damage 1972
- Red Tide Closures 1987-88
- FMP Supplement on dredge restrictions 2010
- Closed bay areas to dredging 2004
- First Oyster FMP 2001
- Blue Ribbon Advisory Council on Oysters 1995
- Freezing conditions reduced harvest 1976-77
- Cultch planting expanded 1979
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- 3" Size limit all oysters 1981
LATER 20TH CENTURY

• A 75 bushel per day harvest limit existed from 1947 until 1984.
• Since 1985 the limit has been set below 75 bushels.
• The current maximum limit allowed by rule is 50 bushels.
• Each year, the fisheries director establishes the limit up to 50 bushels by area or by gear by proclamation.
COMMERCIAL OYSTER LANDINGS BY GEAR 1950-2013
2013 Oyster Landings

• 110,892 bushels (586,619 pounds of meat)
• $3.4 million ex-vessel value

Participation

• 908 fishermen
• 18,575 oyster fishing trips
• 747 vessels.

Among top five species landed from:

• Lockswoods Folly
• Masonboro Sound
• Shallotte River
• Topsail Sound
• Newport River
ANNUAL MECHANICAL HARVEST OYSTER LANDINGS IN BUSHELS
1994-2013
COMMERCIAL OYSTER LANDINGS IN POUNDS AND VALUE
TODAY’S RECREATIONAL FISHERY

• Oysters are commonly harvested recreationally from Oct. 15 to March 31 by hand, rake, and tong.
• People may harvest one bushel of oysters per person, not to exceed two bushels per boat, for personal consumption.
• Recreational landings are unknown.
  —No license is required to harvest oysters for personal consumption.
  —Current recreational fishing surveys do not include oyster harvest.
CULTCH PLANTING

- Cultch planting began in North Carolina in 1915.
- Planting efforts peaked in 1934 with 825,000 bushels of seed oysters relayed and 78,567 bushels of oyster shells planted.
  - These plantings were closed until 1936 when landings doubled to approximately 800,000 bushels (Chestnut 1951).
- Cultch planting efforts have recently decreased to approximately 200,000 bushels annually due to limited funding, shell availability, increased costs, and competition with other states for resources.
  - For instance, Virginia is paying $2.20 per bushel while North Carolina only pays $1.00.
The Oyster Sanctuary Program began in 1996. There are currently 13 sanctuaries in North Carolina totaling 309 acres. Six sanctuaries, totaling about 200 acres, are planned. The sanctuaries are constructed with a variety of materials, such as mined rock, concrete reef balls and recycled construction materials. They are of varying height and complexity of materials. They focus on improving larval supply and connectivity between oyster reefs.
North Carolina Oyster Sanctuary Network Progression

- Blue Ribbon Advisory Council on Oysters
  - West Bay
  - Bogue Sound
- Middle Bay
- Clam Shoal
- West Bluff
- Gibbs Shoal
- Pea Island
- Little Creek
- Neuse River
- Ocracoke
- Crab Hole
- Raccoon Island
- Long Shoal
- Cape Fear
- Create 500 Acres of Oyster Sanctuary
Oyster Sanctuary

The typical sanctuary consists of mounds of rip rap, with each mound containing about 150 tons of material.

- 7-foot clearance
- 6-foot mounds of rip rap
OYSTER SHELL RECYCLING

• While the Oyster Shell Recycling Program lost funding in 2013, the Division of Marine Fisheries is continuing it at a lower level.
• There are 93 active collection sites ranging from Cabarrus County to Dare County.
• Division staff collects and delivers shell to coastal stockpile sites.
• Recycling sites provide about 20,000 bushels of shell per year and is used for cultch plantings.
OYSTER SHELL RECYCLING
WHAT THE FUTURE HOLDS

• Jean Preston Sanctuary
  — The Division of Marine Fisheries plans to work with stakeholders and the scientific community to form a plan to maximizes the benefits to the resource and stakeholders.

• Expanded interest in aquaculture
  — The Division of Marine Fisheries plans to work with industry to:
    • Expand opportunities.
    • Streamline the lease and permitting process.
  — The Division of Marine Fisheries supports the development and future funding of research and production hatcheries.