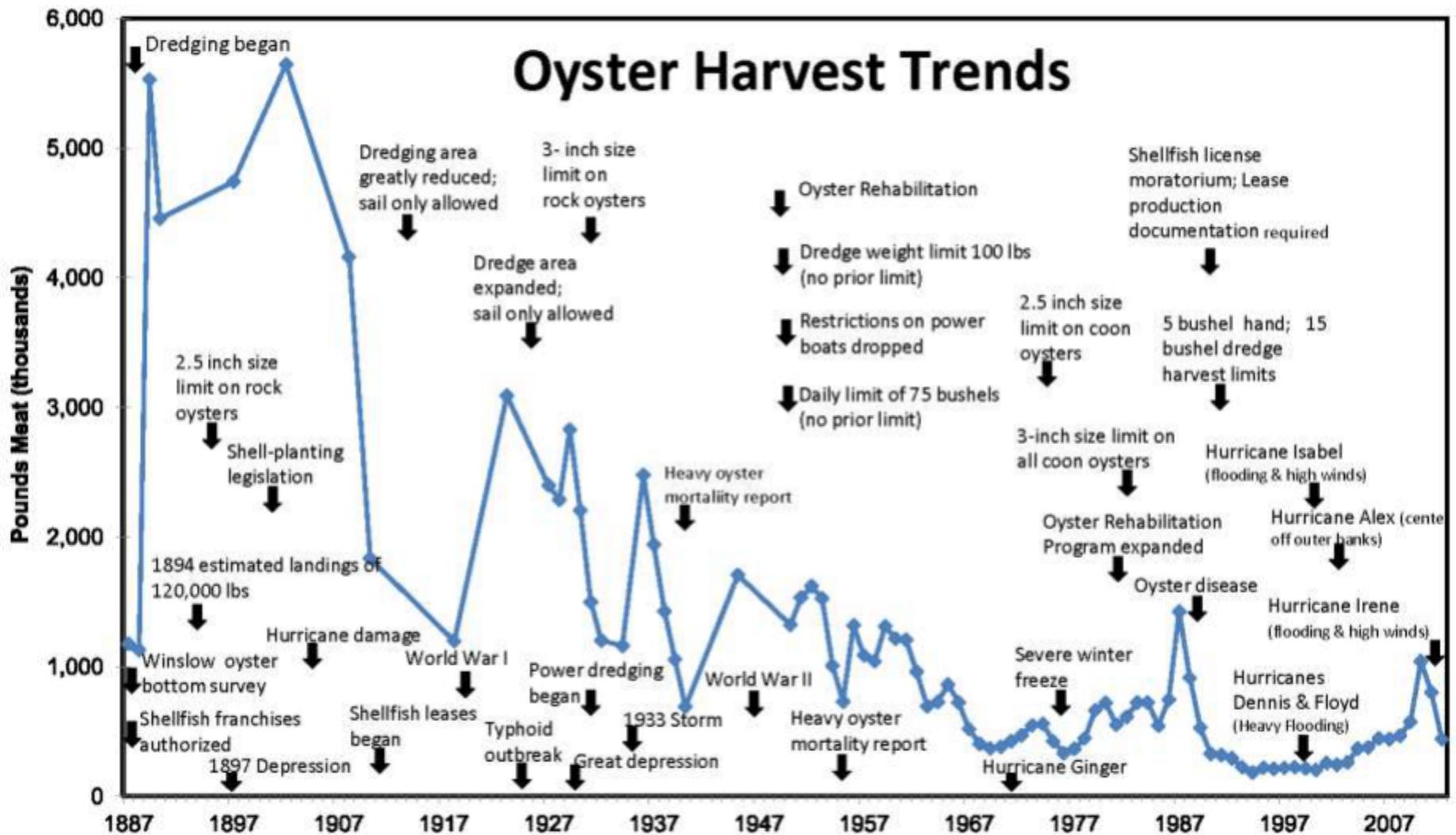


# **OYSTER REHABILITATION, RESTORATION AND MANAGEMENT IN NORTH CAROLINA**



**NC DIVISION OF MARINE FISHERIES**

**March 2014**



# Implementation

- **Cultch Planting:** 150,000 – 300,000 bus. annually
- **Oyster Sanctuaries:**
  - 12 permitted ~ 228 acres ~138 acres developed
  - 3 funded and in process (design, permit, EA, etc.)



# Cultch Planting

- Deployment of materials (shells or limestone marl) providing a hard substrate for oyster larval recruitment
- Statewide program – Roanoke Island to NC/SC border
- Modern era began in 1970 with dedicated staff and vessels
- Program has evolved and currently has 6 specialized vessels:
  - 2 small barges (32' & 36') designed for the small shallow estuaries south of White Oak River
  - 2 medium sized barges (50' & 63') designed for the bays and rivers around Pamlico Sound
  - 1 shallow draft barge with O/B power (40') designed to reach areas inside the reef behind the outer banks and the shallow bays as needed
  - 1 converted surplus LCU (135') operates in Pamlico Sound, deeper portions of rivers and bays



R/V Stones Bay and R/V Cape Fear  
Wilmington, NC



R/V Crab Slough  
Wanchese, NC



**R/V Shell Point**

South River, NC



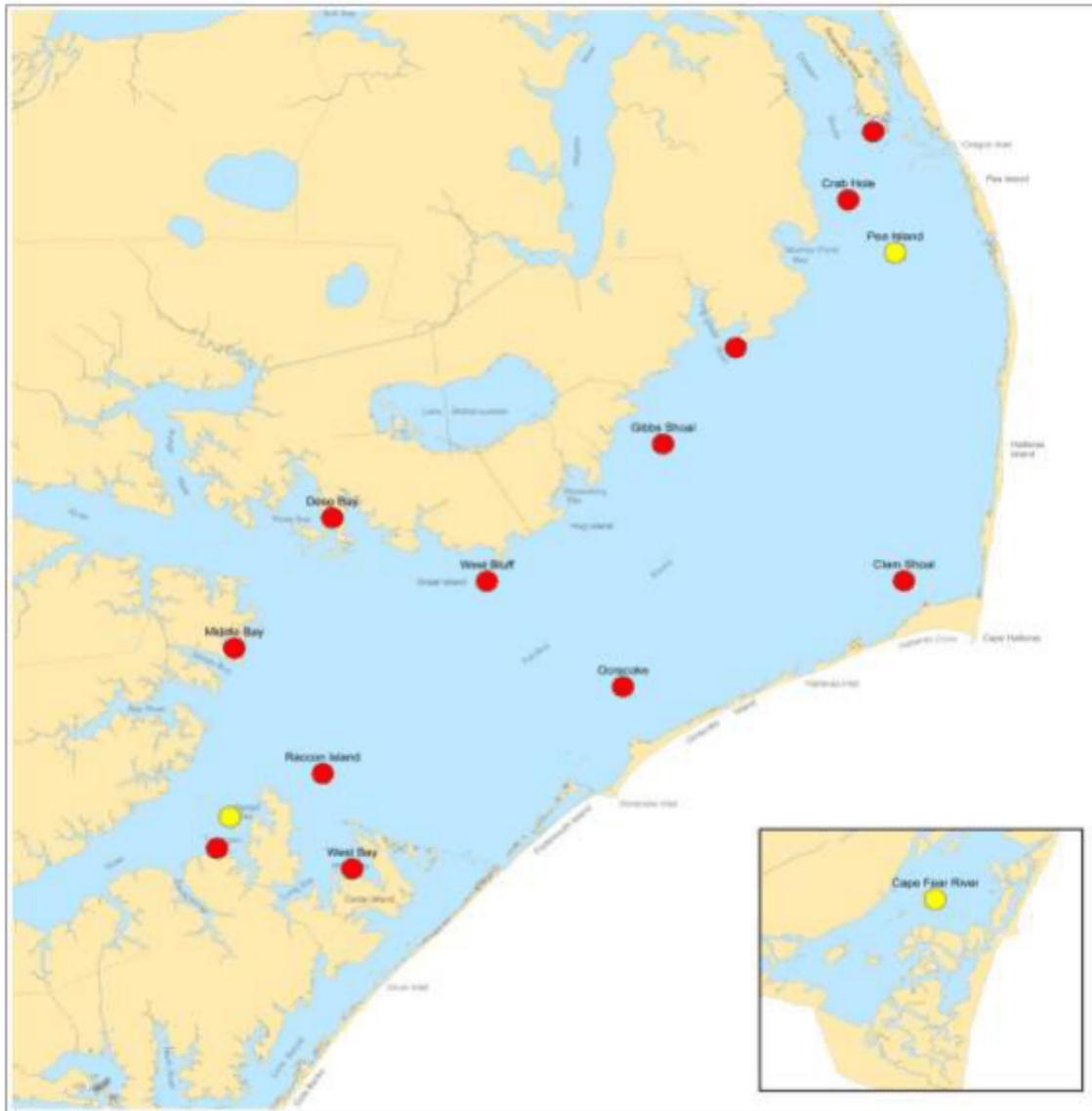
M/V Jones Bay  
South River, NC



M/V West Bay  
South River, NC

# Oyster Sanctuaries

- Program began in 1996 in collaboration with UNC – IMS, DMF's Shellfish Rehabilitation and Artificial reef programs
- DMF has partnered with various state and federal agencies and NGO's (NOAA, TNC, NC DOT, NCCF, CWMTF, US Navy & APNEP)
- Primary function: is to provide a protected broodstock population in key locations that may provide oyster larvae to areas that will support settlement, growth and survival
- Site selections:
  - based on historical oyster presence
  - environmental conditions conducive to oyster recruitment, growth and spawning
  - larval distribution patterns – provide larvae to key areas



**North Carolina Oyster Sanctuaries**  
**Status (November 20, 2013)**

- Existing (12)
- Proposed (3)

0 2.5 5 10 15 20 Miles

# Cultch Planting 2013

- **~149,300 bushels statewide:**
  - 45,000 bushels limestone marl
  - 82,500 bushels purchased oyster shell
  - 21,800 bushels recycled oyster shells

# Oyster Sanctuaries 2013

- **Gibbs Shoal:** CRFL funded 4 year – 30 acre project using limestone rip rap, ultra reef balls and reef cubes
- **West Bluff:** APNEP funded development project 1.3 acres using 10 ultra reef balls, 75 pallet reef balls, and 125 bay balls
- **Long Shoal:**
  - US Navy/TNC funded development of 5 acres as mitigation for reactivation of the Long Shoal Bombing Range using 880 ultra balls
  - TNC funded development of 1.5 acres using 264 ultra reef balls

## Oyster Sanctuaries – in progress

- Raccoon Island: CRFL funded development project 10 acres using 1169 ultra reef balls, 150 tons of crushed concrete and 150 tons of concrete pipe (98% complete)
- Croatan Sound: DMF funded development project 1.5 additional acres of 7.7 acre site. Using 290 pallet reef balls
- Pea Island: CRFL funded development project 10 acres - in design phase
- Little Creek: US ACE funded development project - Environmental Assessment being developed

# Management

- Oyster Fisheries Management Plan – 5 year review is starting
- Oyster season by Rule is October 15 to March 31, but is managed by proclamation
- Area restrictions for gear and harvest limits:
  - Upper portions of bays and smaller estuaries hand harvest only
  - Outer portion of bays mechanical is allowed for a six week period with harvest limit of 10 bushels per day
- Sampling is conducted in mechanical harvest areas throughout the season – samples must exceed 26% legal (3”) oysters
- Two consecutive samples under the 26% threshold closes the area. Sampling continues and the area can reopen with oyster growth.

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