

BAY SCALLOP

Stock Status – Recovering – Bay scallop abundance has improved and seasonal openings have occurred the last few years in some areas. High natural mortality from environmental change and predation cause annual variability in abundance within the areas.

Average Commercial Landings and Value – 2000-2009 – 8,604 lbs. of meat/\$33,063

2009 Commercial Landings and Value – 29,003 lbs. of meat/\$124,256

Average Recreational Landings – 2000-2009 – Unknown, **2009** - Unknown

Status of Fisheries Management Plan (FMP) – The bay scallop FMP was adopted in November 2007. The FMP implemented prohibited take from 2006 to 2008 until an independent sampling indicator was established for re-opening in 2009. Target indices were established from fishery independent data collected before the red tide event in 1984 and 1985 in Core, Back, and Bogue sounds to determine re-opening the fisheries. Amendment 1 of the Bay Scallop FMP is under development to provide some flexibility to open the fisheries as the bay scallop population recovers. Improving data collection on the biology, harvest, environment, and socioeconomic aspects relative to bay scallops is recommended throughout the FMP to provide more comprehensive information for assisting in future management decisions.

Research and Data Needs – Stock identification, recreational landings, recruitment, population abundance, and socioeconomic data, enhancement, cownose ray predation, habitat alterations and water quality impacts to bay scallop survival are recommended research items.

Current Minimum Size Limit – None

Harvest Season – A commercial or recreational harvest season will not be opened unless the 1984-85 fishery independent sampling target indices are reached in the main harvest areas. Only Pamlico Sound was opened during the 2010 bay scallop harvest season (Feb. 1 – Apr. 1, 2010) because the January 2010 sampling estimate was the highest on record and well above the level used to open the season in Pamlico Sound in 2009. All other areas remained closed in 2010 because they did not reach the target level for opening.

Size and Age at Maturity – 1.5 inches, (shell height)/6 months

Historical and Current Maximum Age – 2 years/1.5 years

Target Abundance Indices and Abundance Indices 2009

Core Sound (Oct-Dec) **1984-85:** 1.72 ln (scallop per min.), **2009:** -1.01 ln (scallop per min.)

Bogue Sound (Oct-Dec) **1984-85:** 2.33 ln (scallop per min.), **2009:** 1.34 ln (scallop per min.)

Back Sound (Oct-Dec) **1984-85:** 2.02 ln (scallop per min.), **2009:** -1.31 ln (scallop per min.)

Pamlico Sound (Jan) **2009:** -0.18 ln (scallop per 1-meter square quadrant)

Habits and Habitats – Bay scallops are estuarine dependent mollusks found in grass beds. Bay scallops are hermaphroditic (contain both sex cells) bivalves and mature and spawn in a year. Their lifespan is only 12-26 months. In North Carolina, bay scallops spawn predominantly from August through January and again in March through May. The larvae go through several swimming stages before attaching to a suitable substrate such as seagrass. Upon reaching a size of approximately 1 inch (20-30 mm), bay scallops drop to the bottom. Although other benthic structures can be utilized for attachment, bay scallops utilize seagrass beds almost exclusively, and are therefore highly dependent on this habitat for successful recruitment. Bay scallops are filter feeders and feed on

benthic diatoms. Predators of the bay scallop include cownose rays, blue crabs, starfish, whelks, and herring gulls.

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