

BLUE CRAB

(06/09 ARCHIVE - NCDMF)

Stock Status - Concern - Increased concern, for the health of the stock and fishery, is due to reduced landings of hard blue crabs during 2000-2002 and 2004-2007, following record-high landings observed during 1996–1999. N.C. State University researchers have estimated maximum sustainable yield (MSY) for blue crabs to be between 26 million pounds and 52 million pounds per year. However, it is felt that these MSY estimates are not valid, based on data and modeling limitations and the significant influence of environmental variables on the population. Due to data and modeling limitations, these MSY estimates should be used as a guideline to the long-term potential of the fishery, rather than as strict targets. However, the modeling results do indicate that the blue crab stock is currently at a low biomass level, and current fishing pressure exceeds levels required to achieve MSY, leading to reduced yield. None of the assessment results suggest the high landings experienced during the late 1990s would be sustainable. The resource will be considered overfished, when annual landings decline for five consecutive years.

Average Commercial Landings and Value 1999-2008 – 35,009,065 lbs./ \$28,853,788
(Includes Hard, Soft, and Peeler Crab Landings and Value)

2008 Commercial Landings and Value – 32,890,243 lbs./ \$27,540,731

North Carolina's most valuable commercial fishery and ranks first in pounds harvested. Landings for 2008 rebounded from the low levels observed in 2005-2007, increasing by just under 11.5 million pounds from 2007 levels. The Albemarle Sound accounted for approximately 7 million pounds of the increase in landings. However, the 2008 fishery yielded the fifth lowest landings during the 10-year period of 1999-2008. Overall value increased \$6.1 million from 2007 levels, yielding the fifth lowest value during the 10-year period. Although, harvest effort (crab pot trips) during 2008 decreased slightly (4%) compared to 2007 (i.e., 49,154 vs. 47,215 trips), hard crab landings increased (57.2%) from 20.6 million pounds in 2007 to 32.3 million pounds in 2008. Peeler/soft crab landings declined 33% from 2007 levels, with 2008 yielding the lowest harvest in the 10-year period, 1999-2008. Cooler spring-time water temperature and higher salinities were probable factors in the peeler/soft crab reduction; causing crabs to move further inland and away from the traditional crabbing areas.

Recreational Landings for 2008 – 110,234 lbs. (Recreational Commercial Gear License Survey)

North Carolina's primary species for directed fishing trips (crab pots) and estimated pounds harvested. Landings estimates for 2008 increased by 12,231 pounds over 2007 levels. During the 7-year period, 2002-2008, annual landings averaged 116,797 pounds.

Landings by Recreational Coastal Landowners - 279,434 lbs. for 2002 (one time survey estimate)

Landings by Recreational Non-license Holders and Non-landowners – unknown.

Estimated recreational landings are approximately one percent of the commercial harvest.

Status of Fisheries Management Plan (FMP) – North Carolina FMP adopted by the N.C. Marine Fisheries Commission in December 1998. The first revision to the FMP was completed in December 2004. The next FMP revision is scheduled for 2009-2010.

Research and Data Needs - Research and data needs are listed in the revised 2004 FMP.

Current Regulations - 5 inches from tip of spike to tip of spike, for male and immature female hard crabs. For crabs less than the minimum size, a tolerance of not more than 10% by number in any container shall be allowed. Mature females, soft and peeler crabs, and male crabs (March 1- October 31) to be used as peeler bait are exempt from the minimum size limit. Seasonal Maximum Size Limit - When the spawning stock is determined by fishery independent surveys to be abnormally low, the Director may prohibit the

harvest of mature female blue crabs greater than 6¼ inches (5% tolerance) and female peeler crabs greater than 5¼ inches from September 1 through April 30. This maximum size limit was enacted for the first time in January 2006.

Harvest Season - Open year round.

Size and Age at Maturity - 5-6 inches/ 12-18 months

Historical and Current Maximum Age - 5-8 years/ 2-4 years

Juvenile Abundance Index - 7.29 crabs (size = 0-60mm) per minute for the 1987-1998 juvenile trawl survey (unvalidated). Juvenile Index for 2007 and 2008 was 5.5 and 8.1. Despite variability in abundance, there is no general downward or upward trend in recruitment.

Habits and Habitats - Migration and movement among various habitats are seasonal, depending on life stage, sex, maturity, and associated salinity preferences. Many different habitats are used during migrations from high-salinity ocean waters to the lower-salinity and freshwaters of the coastal sounds, rivers, and creeks.

For more information, see [DMF Species Leads page](#).