

BLUE CRAB

(06/06 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 - 2005, 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 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 the blue crab stock is currently at a low biomass level, and current fishing pressure exceeds that required to produce 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 1996-2005 – 45,566,540 lbs./\$34,814,446
(Includes Hard, Soft, and Peeler Crab Landings and Value)

2005 Commercial Landings and Value – 25,418,408 lbs./\$20,253,134

North Carolina's most valuable commercial fishery and ranks first in pounds harvested. The 2005 fishery yielded the lowest landings during the 10-year period 1996-2005, declining over 8.7 million pounds from 2004 levels. Overall value declined \$4.2 million, yielding the lowest value during the 10-year period. Hard crab landings declined significantly (28%) from 32.6 million pounds in 2004 to 23.6 million pounds in 2005, following a 2-year increase in 2002-2003. Additionally, harvest effort (crab pot trips) during 2005 was down significantly (21%) from 2004 (i.e., 57,761 vs. 73,501 trips). Peeler/soft crab landings rebounded to the late 1990 levels, with 2005 yielding the second highest harvest in the 10-year period 1996-2005.

Recreational Landings for 2005 – 105,179 lbs. (Recreational Commercial Gear License Survey)

North Carolina's primary species for directed fishing trips (crab pots) and number two fishery for estimated pounds harvested. 2005 estimates were almost 7,000 pounds less than 2004.

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.

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

Current Regulations (2006) - 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 6¾ 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/2-3 years

Juvenile Abundance Index - 7.29 crabs (size = 0-60mm) per minute for the 1987-1998 juvenile trawl survey (unvalidated). Index for 2004 and 2005 were 10.0 and 6.5. Despite variability in abundance, there is no general downward or upward trend in recruitment.

Habits/ 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](#)