

BLUE CRAB

(06/04 ARCHIVE - NCDMF)

Stock Status—Concern. Significantly reduced landings of hard blue crabs during 2000 - 2002, following the historically record high landings observed during 1996 - 1999, has caused increased industry concern for the health of the resource and fishery. NCSU researchers have estimated maximum sustainable yield (MSY) for blue crabs to be between 38 and 46 million pounds per year (Eggleston et al. 2004). 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. Because of 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 that required to produce MSY, leading to reduced yield (Eggleston et al. 2004). None of the assessment results suggest that the high landings from the late 1990s would be sustainable.

Average Commercial Landings and Value 1994-2003— 49,607,076 lb, \$36,926,299

(Includes Hard, Soft, and Peeler Crab Landings and Value)

2003 Commercial Landings and Value (preliminary)— 42,770,222 lb, \$37,108,494

North Carolina's number one fishery in value and number two fishery in pounds landed.

Landings for 2003 increased over 5 million pounds from the 2002 levels. Although landings in 2003 were almost 7 million pounds lower than the 10-year average, value of the fishery was almost equal to the 10-year average of \$36.9 million.

Hard crab landings were up for the second year in a row after a 3-year downward trend (1999-2001).

Peeler/soft crab landings were down for the second year in a row, with 2003 yielding the lowest landings during the period from 1994 - 2003. Increased rainfall, during the fall of 2002 and continuing into 2003, flushed the northern most sounds and reduced salinities significantly during 2003. This increased rainfall and runoff influenced crab distribution and contributed to reduced harvest in some of the more inland (fresher) waters. Directed hard crab pot effort declined by 2,872 trips and landings were down 2.9 million pounds in the Albemarle and Currituck sounds and adjacent rivers as compared to 2002. Increased crab pot effort and hard crab landings were evident throughout the Pamlico, Core, Croatan, and Roanoke sound complex with a 4,100 trip and 8.1 million pound increase. However, landings and trips are still significantly less than those observed during 1994-1999. Cape Fear River yielded the lowest landings and crab pot effort on record for the period from 1994-2003. Nevertheless, hard crab landings and effort in the Southern coastal area have remained relatively stable throughout the 1994-2003 period. Overall, catches were up during August - December (except Sept.-Hurricane Isabel) causing saturation in the Picking House market and no-harvest (lay) days for crabbers during short periods in the northern areas. Imports of low priced foreign crabmeat and the high price for basket market crabs continues to adversely impact the economic viability of the domestic crab picking industry.

Recreational Landings for 2003— 146,741 lb (Recreational Commercial Gear License Survey)

North Carolina's number one species for directed fishing trips (crab pots) and number two fishery for estimated pounds harvested. Estimates for 2003 were almost 13,000 lb greater than 2002.

Landings by Recreational Coastal Landowners— 279,434 lb for 2002 (Vogelsong et al. 2003)

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 MFC on December 11, 1998. FMP is currently being revised, scheduled for completion in 2004.

Research and Data Needs— Research and data needs are listed in the FMP.

Current Minimum Size Limit— 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 percent 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.

Harvest Season— Open year round

Size and Age at Maturity— Most are mature at 5 - 6 inches at an age of 12 to 18 months.

Historical Maximum Age— 5 to 8 years old. **Current Maximum Age**— 2 to 3 years old.

Juvenile Abundance Indices Average (JAI)— 7.29 crabs (size = 0-60mm) per minute for the 1987-1998 juvenile trawl survey (unvalidated). JAI's for 2002 and 2003 were 9.4 and 5.8, respectively. 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](#)