

**ATLANTIC MENHADEN**  
(06/09 ARCHIVE - NCDMF)

**Stock Status – *Viable*** – The ASMFC updated the 2003 benchmark assessment. Available data on the species were evaluated and finalized for inclusion into the 2006 update. Status of the stock was determined based on the terminal year (2005) estimate relative to its limit (or threshold). Benchmarks have been estimated based on the results of the updated base run. The terminal year estimate of fishing mortality rate was estimated to be 56% of its limit and 91% of its target. Correspondingly, the terminal year estimate of population fecundity was estimated at 158% of its fecundity target and 317% of its limit. Therefore the stock is not considered to be overfished, nor is overfishing occurring. The next stock assessment will be conducted in 2009. It will be a benchmark assessment that is scheduled for peer review in March 2010. Commercial landings have decreased because there is no longer reduction fishery fishing in NC.

**Average Commercial Landings and Value 1999 – 2008** – 33,992,496 lbs./\$2,582,995

**2008 Commercial Landings and Value** – 645,231 lbs./\$70,339

**Average Recreational Landings 1999-2008** – unknown, **2008** – unknown

**Average Recreational Commercial Gear License (RCGL) Landings 2002-2008** – 5,959 lbs. **2008** – 284 lbs.

**Status of Fisheries Management Plan (FMP)** - In North Carolina, menhaden are currently included in the Interjurisdictional FMP, which defers to Atlantic States Marine Fisheries Commission (ASMFC) FMP compliance requirements. Revised ASMFC FMP approved in 1992; Addendum I of Amendment I was approved in August 2004 to modify the biological reference points, stock assessment schedule and revise the habitat section. The 2003 stock assessment uses a new model with a fecundity-based biological reference point to determine stock status. Addendum II was approved by the ASMFC Board and establishes a five-year annual cap on reduction fishery landings in Chesapeake Bay and will be implemented in 2006. Addendum II also establishes a research program to determine menhaden populations in the Chesapeake Bay and whether localized depletion is occurring. Addendum III essentially mirrors the intent and provisions of Addendum II but incorporates 2005 landings data and allows for the transfer of under-harvest to the following year's harvest. Addendum III was passed in November of 2006. The Commission's Atlantic Menhaden Management Board approved the initiation of Draft Addendum IV which proposes extending the Chesapeake Bay reduction fishery harvest cap, established through Addendum III, for an additional three years (2011 to 2013). The Board will annually review measures in Addendum IV, if approved, to determine if they are appropriate given the most recent information available about the stock and fishery.

**Research and Data Needs** - develop coast-wide adult abundance index; evaluate environmental factors affecting recruitment to age 1; evaluate the ecological role of menhaden; data from bait fisheries (size, age, effort); conduct research for size/age at maturity

**Current Regulations** - none

**Harvest Season** - always open in ocean beyond one mile of beach (with some specific exceptions); various closures in estuaries and ocean within one mile of beach (see N.C. Marine Fisheries Commission Rule Book).

**Size and Age at Maturity** – 7-9 inches fork length (FL)/3 + years

**Historic and Current Maximum Age** -10 years/8 years

**Juvenile Abundance Index 1998-2007** - 15.3, **2007** – 12.0

**Habits and Habitat** - Atlantic menhaden are estuarine-dependent with a single stock along the Atlantic coast. They spawn during fall-winter in the ocean from the Virginia capes to south of Cape Lookout. Menhaden migrate north from unspecified south Atlantic wintering areas in the spring, with larger/older fish going farthest north. Menhaden are unique in their dependence as adults on phytoplankton for food that they strain from the water while swimming in schools near the surface. Recent research indicates that year-class strength is probably determined by environmental factors (currents, temperature, predation, others) acting on larvae as they approach and enter inlets and nursery areas.

**Use of Menhaden** - About 85–90% of the annual Atlantic coast catch is processed into fishmeal for animal feed, and oil as an industrial base and for food additives. The rest is used for bait in the crab and lobster pot fisheries, as well as for sport fishing bait.

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