

ATLANTIC MENHADEN

(06/07 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. Commercial landings have decreased because there is no longer reduction fishery fishing in NC.

Average Commercial Landings and Value 1997 – 2006 – 49,384,971 lbs./\$3,853,658

2006 Commercial Landings and Value – 963,287 lbs./\$148,054

Average Recreational Landings -The Marine Recreational Fisheries Statistics Survey is designed to sample anglers who use rod and reel as the mode of capture. Since the majority of menhaden are caught with cast nets for bait, recreational harvest data are imprecise. Menhaden are usually released by anglers before observation by creel clerks and therefore, cannot be identified to the species level.

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

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 (2007) - 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 1997-2006 - 16.4, **2006** – 2.7

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](#)