

## **ATLANTIC MENHADEN**

(06/04 ARCHIVE - NCDMF)

**Stock Status—*Viable***— the status of F and population fecundity in 2003 (latest ASMFC stock assessment) suggest that fishing mortality rate is near, but slightly above the F-target and population fecundity is well above the fecundity target.

**Average Commercial Landings and Value 1994 - 2003**--61,500,112 lbs., \$4,423,094

**2003 Commercial Landings and Value**--48,936,502 lbs., \$3,943,814

**Average Recreational Landings 1994 - 2003** --Not applicable

**Average RCGL Landings 2002-2003**--Not applicable

**Status of Fisheries Management Plan**--No North Carolina FMP. Revised ASMFC FMP approved in 1992; Amendment 1 (approved April 2001) includes overfishing definition and reorganization of management program. Amendment 1 defines two benchmarks, fishing mortality rate (F) and spawning stock biomass (SSB) as the focus of the stock status as well as state management actions, and Internal Waters Processing requests. ASMFC is in the process of developing Addendum 1, which proposes to modify the biological reference points, stock assessment schedule and revise the FMP's habitat section. The 2003 stock assessment uses a new model with a fecundity-based biological reference point to determine stock status.

**Data/Research Needs**--Develop coastwide juvenile abundance index; evaluate environmental factors affecting recruitment to age 1; data from bait fisheries (size, age, effort); evaluate bait demand, supply, and value.

**Current Regulations**--There is no minimum size limit

**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 MFC Rule Book).

**Size and Age at Maturity**--7-9 inch FL; 3 + years old

**Historic and current maximum age**--10 years old/ 8 years old

**Current Juvenile Abundance Index (2003)** --14.70 (number of individuals per unit effort).

**Habits/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](#)