

## **AMERICAN EEL**

**Stock Status - *Unknown*** – The Atlantic States Marine Fisheries Commission (ASMFC) benchmark stock assessment was reviewed in February 2006. The management board accepted the stock assessment as complete; however, after considering the peer review advisory report the board did not approve this document for management purposes. The status of the stock is still unknown. An updated stock assessment is expected in 2011.

**Average Commercial Landings and Value 2000-2009** – 80,516 lbs./\$138,059

**2009 Commercial Landings and Value** – 65,481 lbs./\$154,536

**Average Recreational Landings 2000-2009** – Unknown, **2009** – Unknown

**Status of Fisheries Management Plan (FMP)** - In North Carolina, American eel is currently included in the Interjurisdictional FMP, which defers to ASMFC FMP compliance requirements. The ASMFC initially approved a FMP in 1999, with the most recent review approved February 2006. Addendum 1 required states to establish a mandatory trip-level catch and effort monitoring program, including the documentation of the amount of gear fished and soak time. State compliance to Addendum 1 started in January 2007. In January 2007, the Management Board initiated the development of Addendum II with the goal of increasing the escapement of silver eels to the spawning grounds. After receiving extensive public comment and due to the lack of quality data, the ASMFC did not implement any additional harvest restrictions. The Commission strongly encouraged member states and jurisdictions, to consider and mitigate, if possible, other factors that limit eel survival. Specifically, the Commission requested that member states and jurisdictions request special consideration for American eel in the Federal Energy Regulatory Commission dam relicensing process. This consideration should include, but not be limited to, improving upstream passage and downstream passage, and collecting data on both means of passage. An updated stock assessment is expected in 2011.

**Research and Data Needs** – There is the need to acquire a solid understanding of the species distribution and abundance, commercial and recreational harvest, and a reliable stock assessment method. However, additional funding and personnel are a priority before these research needs can be adequately met.

**Current Regulations** – Recreational: 6-inches total length (TL)/50 eels/person/day;  
Commercial: 6-inches TL; mesh size restrictions on eel pots; bait limit of 50 eels/day; seasonal closures

**Harvest Season** – Year round

**Size and Age at Maturity** – Males: 12 inches TL/4 – 8 years; Females: 18 inches TL/7 -12 years

**Historical and Current Maximum Age** – 43 years

**Juvenile Abundance Index 2004-2008** –17.2, **2009** – DMF Sampling eliminated due to budget cuts. NOAA bridge net survey data may be used to develop a new North Carolina juvenile abundance index for American eel.

**Habits and Habitats** – The American eel is a catadromous species requiring multiple habitats including: ocean, estuaries, and fresh water streams, rivers, and lakes. This catadromous life cycle requires a migration back to the Sargasso Sea to spawn, while spending the majority of its life in brackish and freshwater. Larvae develop at sea and change from glass eels into elvers in nearshore ocean waters and estuaries. Elvers either remain in the estuary or migrate upstream.

At approximately 2 years of age individuals are classified as the yellow eel stage and resemble the adult form. This stage lasts from approximately 5 to 20 years. Yellow eels also inhabit estuaries and fresh water tributaries where they feed on invertebrates and smaller fish. They prefer areas with soft bottom and vegetation. The mature silver eel life stage occurs at the time of downstream migration, leaving the estuary for the open ocean to spawn then die. Seaward migration occurs in late summer and fall.

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