



AMERICAN EEL MONITORING PROJECT

We Bring You Delaware's Great Outdoors through Science and Service

The American Eel in Delaware

Although many Delawareans may find them unappealing, American Eel (*Anguilla rostrata*) support a major fishery in Delaware. American Eels are mostly sold live for bait and exported as a food fish. Historically, Delaware has landed over 100,000 pounds of eels annually and has often been in the top three in both pounds landed and value among all Delaware fish. Delaware's landings have

dropped to a much lower number in recent years, primarily due to bait shortages and market considerations. However, Delaware is typically among the top three states in American Eel landings. Coast-wide American Eel landings have dropped significantly from their peak in the 1970s, prompting concern that the eel population is in decline. This perceived decline led the Atlantic States Marine Fisheries Commission to pass an American Eel management plan in 2000 that requires all Atlantic states to monitor glass eels entering state waters and gather population information (lengths, weights, and ages) from commercially-caught eels.



Photo Credit: Duane Raver, Jr.

Glass Eel Monitoring

Young-of-the-year American Eels, called Glass Eels because they lack pigment and are thus transparent (see photo), enter Delaware waters from the ocean during January through May. Glass Eels are attracted to fresh water flow and find areas in which the fresh water flow is in close proximity to the ocean particularly attractive. One such area is the Millsboro Pond spillway on Indian River. The Division has monitored Glass Eels at this spot for six weeks annually since 2000 and Glass Eel catches are often very high there. The six week annual total has ranged from 32,000 in 2009 to 797,000 in 2013, and the daily catch has been as high as 300,000.



Photo Credit: Vicki Boucher

Eel Population Structure Monitoring

Eels large enough to be caught in commercial eel gear (mostly traps called eel pots) are called Yellow Eels for the characteristic yellowish tinge to their pigmentation. A representative sample of these eels is collected from commercial eelers by the Division. These eels are then measured, weighed, and aged from a hard structure called an otolith (see photo). The resulting data is used to estimate the population structure of commercially caught American Eels.



Photo Credit: Chad Betts

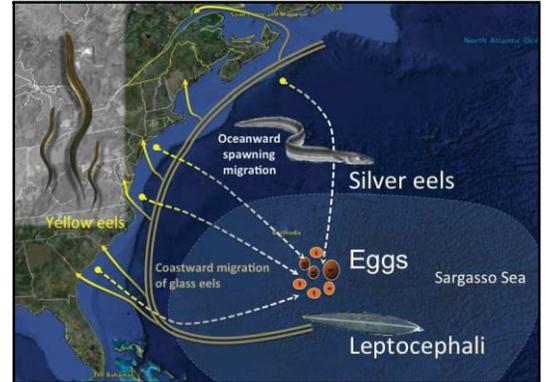


Photo Credit: Virginia Institute of Marine Science

American Eel Life Cycle

American Eel undertake the longest migration of any Delaware fish, coming to Delaware from the Sargasso Sea in the Atlantic Ocean as Glass Eels then returning as mature adults or silver eels to spawn and die. American Eels reside in Delaware waters from 4 to 20 years before leaving to spawn. The diagram above gives an idea of the scale of the American Eel's life journey.

For more information on the
**AMERICAN EEL
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please contact:

Jordan Zimmerman
Fisheries Biologist

Fisheries Little Creek Field Office
P.O. Box 330
Little Creek, DE 19961
Phone: 302.735.2960

jordan.zimmerman@delaware.gov

