

Understanding the Origins and Growth Rates of Juvenile Striped Bass in Small Rivers and Coastal Bays

Dr. Olaf P. Jensen
Principal Investigator
Department of Marine and
Coastal Sciences
Rutgers, the State University
of New Jersey
410-812-4842
olaf.p.jensen@gmail.com

Dr. Kenneth W. Able
Department of Marine and
Coastal Sciences
Rutgers, the State University
of New Jersey
609-296-5260 x230
able@marine.rutgers.edu

Dr. Paola Lopez-Duarte
Department of Marine and
Coastal Sciences
Rutgers, the State University
of New Jersey
609-296-5260 x230
lopez-duarte@hsrl.rutgers.edu

The striped bass fishery remains one of the most important fisheries along the Atlantic coast. In New Jersey it is an extremely important species for the recreational fishing industry with the spring and fall fisheries providing an economic boost to the industry. This fishery is unique in that it provides equal angling opportunities for shore- and boat-based anglers. Management measures implemented in the mid 1980s helped the stock recover and the spawning stock biomass peaked in 2003. However, since 2003 biomass has been on the decline and scientists are uncertain as to why the decline is taking place. This decline has forced fishery managers to implement measures that reduce the striped bass harvest in New Jersey with the goal of increasing recruitment into the spawning stock biomass. Further reductions in the striped bass harvest/catch have the potential to negatively impact angler participation in this fishery.

The research team will begin a two year effort in the spring of 2016 to investigate the presence of juvenile striped bass in Great Egg Harbor, Mullica River – Great Bay and the Navesink and Raritan Rivers. With the assistance of recreational anglers they will capture juvenile striped bass for laboratory analysis. Fish ear bones, known as otoliths, contain a chemical record of the



- NOAA photo

water the fish inhabited at different points in their lifetimes. Using microchemistry techniques on otoliths from juvenile striped bass captured in these estuaries the team will identify when they entered the estuary and determine if they originated locally or from one of the larger regional estuaries such as the Chesapeake, Delaware or Hudson. They will also compare growth rates of juvenile striped bass that remain in the estuary where they were born to those that migrate to a different estuary. The results of the project will provide fishery managers with an understanding of how small estuaries contribute to the overall stock of striped bass.

Anglers can contribute to this project. When they catch a striped bass under 12" in a New Jersey river or bay other than the Hudson River or Delaware River/Bay, they can report the date, location and number of stripers under 12" to sej.stripers@gmail.com.

Anglers are reminded that it is illegal to keep undersized fish.

For more information and updates on the project visit <http://marine.rutgers.edu/~ojensen/Striper.html>.

