



**Chesapeake Bay Finfish Investigations  
Summary of 2013 Maryland Striped Bass Stock Assessment Surveys  
Natural Resources Article § 4-746**

The primary objectives of the Striped Bass Program of the Maryland Department of Natural Resources (MD DNR) are to monitor the striped bass population in Maryland's portion of the Chesapeake Bay and to assess the status of Maryland's striped bass spawning stock. Striped Bass Program surveys provide information regarding: recruitment, relative abundance, harvest, age structure and growth, mortality, and migration. The data generated are used in the interstate striped bass management process and provide reference points for future Atlantic coast striped bass management considerations.

The spring 2013 spawning stock survey indicated that there were 18 age-classes of striped bass present on the Potomac River and Upper Bay spawning grounds. These fish ranged in age from 2 to 19 years old. Male striped bass ranged in age from 2 to 17 years old, with age 9 and age 10 fish (2004 and 2003 year-classes) being the most abundant component of the male striped bass spawning stock. The majority of females were ages 6 to 14, with most females collected at age 10 (2003 year-class). During the spring 2013 spawning season, age 8 and older females made up 75% of the female spawning stock.

MD DNR biologists have monitored the reproductive success of striped bass and other species in Maryland's portion of the Chesapeake Bay annually since 1954. During this year's juvenile striped bass survey, biologists collected over 34,540 fish of 51 different species, including 759 juvenile striped bass. DNR biologists have conducted this survey and use these data to assess spawning success of other important species.

The 2013 striped bass juvenile index, a measure of striped bass spawning success in Chesapeake Bay, was 5.8. This was below the 60-year average of 11.7 but an improvement over the 2012 juvenile index. Highly variable spawning success is a hallmark of striped bass populations. Typically, several years of average reproduction are interspersed with occasional large and small year-classes. Spawning success is heavily influenced by environmental conditions such as flow rates and water temperature. In 2011, biologists documented one of the most successful striped bass spawns on record and these 2-year-old fish are currently very abundant in the Chesapeake Bay. The successful spawning years of 1989, 1996, and 2001 were also followed by below-average or poor years of reproduction.

During the 2013 spring recreational trophy season, biologists intercepted 207 fishing trips, interviewed 456 anglers, and examined 182 striped bass. The average total length of striped bass sampled was 36.4 inches total length (TL) and the length of fish sampled ranged from 28 to 41 inches TL. The catch was dominated by fish between 34.6 and 37.0 inches TL. The average weight was 18.2 pounds. Striped bass sampled from the trophy fishery ranged in age from 5 to 19 years old. The 2003 (age 10) and 2004 (age 9) year-classes were the most frequently observed cohorts sampled from the spring fishery. Average private boat catch rate based on angler interviews was 0.3 striped bass caught per hour.

In summary, Maryland's commercial and recreational striped bass fisheries have been concurrently managed by the MD DNR as part of the Atlantic coastal stock under the auspices of the Atlantic States Marine Fisheries Commission (ASMFC.) Data collected by MD DNR biologists are used in the management of both the recreational and commercial fisheries. The ASMFC and MD DNR scientists recently conducted the bi-annual Atlantic striped bass assessment in 2013, utilizing data provided by MD DNR. The 2013 ASMFC striped bass coast wide assessment indicated that the Atlantic coast striped bass resource is not overfished or experiencing overfishing relative to new reference points defined in the assessment.