

Proposal to manage Maryland's Chesapeake Bay spring trophy striped bass fishery by creel, size and season limits.

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Introduction

From 1993 through 2007 the Chesapeake Bay states had a cap on the number of large migratory striped bass that can be harvested during the spring recreational and charter boat fishery in April and May. The harvest cap was implemented in 1993 as part of the Atlantic States Marine Fisheries Commission's (ASMFC) interstate management plan for striped bass early in the rebuilding phase. The original harvest cap was set at 3,000 fish and increased to 25,000 fish in 1995. From 1996 to 2003, the harvest cap was held constant at 30,000 fish. Beginning in 2004, the spring quota was calculated as a constant fraction of the absolute abundance of the coastwide population of age eight and older (8+) striped bass. This fraction was determined as the ratio of quota to the population size of age 8+ striped bass in 1996. In 2003, the quota was exceeded for the first time since 1995, and has been exceeded regularly since that time (Table 1). It is believed that harvest exceeded the adjusted quota due to a significant increase in the abundance of older (8+) fish in Chesapeake Bay population and, perhaps most specifically, to the strong presence of 1993 and 1996 year classes and favorable fishing conditions. Attempts to curtail the removals by increasing the minimum size from 28 to 33 inches in 2006 and introducing a no possession slot limit (36-40 inches) in 2007 did not produce the expected reduction of harvest.

In our report to the striped bass Technical Committee, we indicated several problems with quota based management of spring trophy fishery (Sharov and Barker 2007). In particular, we noted the baseline quota of 30,000 fish adopted in 1993 was not based on any biological analysis. At that time, no consideration was given to the ratio of spring harvest to spawning stock size, no mechanism was proposed to calculate maximum allowable harvest, and no projections were made to determine future stock sizes. Instead, the level was set with only short-term future

consideration based on a history of recent landings. Rate of population growth in the future was not known.

By 2003, the number of age 8+ fish in the population had doubled, the 1993 year class was strongly recruited to the spring fishery, and it became necessary to account for the change in population size of migrant striped bass. Thus, in 2004, the fixed quota was replaced with a variable quota system. The baseline quota for each year was calculated as a ratio of the number of age 8+ fish in the most recent year and the number of 8+ fish in 1996 multiplied by 30,000 (1996 year quota). However, harvest continued to exceed the quota despite very conservative regulations (trophy fishing season is equal to or less than 1 month, 1 fish creel limit, and large minimum size). Harvest overages were apparently the result of an arbitrary choice of the baseline quota (30,000 fish) in the past. The current quota calculation system proved too restrictive relative to the stock status. As a result, it became apparent that Chesapeake Bay states would consistently face overages and sanctions as long as the population of migrant striped bass remained high or continued to grow. We reported these concerns to the Technical Committee in a previous report (Sharov and Barker 2007) and pointed out problems with the quota based management in recreational fishery, such as the inability to have real time information about recreational harvest.

In 2007 the striped bass management board approved a no quota management regime for the 2008 fishing season at the request of the state of Maryland. This proposal had been reviewed and approved by the Technical Committee prior to board approval. Maryland regulations for 2008 were: 1). open season from the third Saturday of April to May 13, one fish creel, 28-inch minimum size; and 2). open season from May 16 to May 31, two-fish creel, 18-inch minimum, and only one of which may be 28 inches or greater. Total harvest of migrant striped bass from April 19 through June 15, 2008, was 36,166 fish, a significantly lower number compared to a record harvest in 2005 and 2006 seasons and similar to the 2007 harvest (Hoover et al. 2008). The 2008 fishery results serve as another indication that conservative size, season and bag limits can successfully keep harvest of migrant striped bass within safe limits.

Proposal for the size season and creel based management of spring striped bass migrant fishery in Chesapeake Bay.

As an alternative to ad hoc management, the Chesapeake Bay states propose a non-quota based fishery for Chesapeake Bay spring season to begin in 2009 and to remain in effect until a peer reviewed assessment of the striped bass stock determines any required corrective action for the coastal migratory striped bass population. Maryland regulations would be: 1). open season from the third Saturday of April to May 15, one fish creel, 28-inch minimum size; and 2). open season from May 16 to May 31, two-fish creel, 18-inch minimum, and only one of which may be 28 inches or greater.

The states of Maryland and Virginia will continue to estimate and report total spring migrant striped bass harvest. This proposed change will align the Chesapeake Bay spring striped bass fishery regulations with those used for migrant striped bass along the rest of the Atlantic coast. Should the fishing mortality of the coastwide population of 8+ striped bass exceed the overfishing threshold at some point in the future, Maryland and Virginia will take the necessary actions to reduce fishing mortality to the target level in coordination with other states.

Literature Cited

Hoover, A. K., L. Warner, L. S. Barker, and A.S. Sharov. Estimate of the 2008 Harvest of Spring Coastal Migrant Striped Bass in Chesapeake Bay. 2008. Report to the Striped Bass Technical Committee.

Sharov, A. S., and L. S. Barker. 2007. Proposal to Eliminate the Chesapeake Bay Spring Trophy Fishery Quota. Report submitted to the Striped Bass Technical Committee.

Table 1. History of the spring striped bass quota and harvest from 1992-2008.

Year	Baseline Harvest Cap	Bay Spring Migrant Harvest	Harvest Cap Excess	Adjusted Quota Excess
1992	NA	1013		
1993	3,000	2719		
1994	5,000	3672		
1995	25,000	42,634	17,634	17,634
1996	30,000	11,613		
1997	30,000	21,222		
1998	30,000	10,021		
1999	30,000	17,051		
2000	30,000	26,748		
2001	30,000	25,728		
2002	30,000	14,839		
2003	30,000	43,900	13,900	13,900
2004	40,624	31,404		4,680
2005	56,424	65,664	9,240	25,040
2006	55,208	67,771	12,563	26,283
2007	50,030	36,328		6,328
2008	no cap	36,590		