

Atlantic States Marine Fisheries Commission

Working towards healthy, self-sustaining populations for all Atlantic coast fish species, or successful restoration well in progress, by the year 2015.

ATLANTIC STRIPED BASS TECHNICAL COMMITTEE REPORT #2004-2

NEW JERSEY'S STRIPED BASS CONSERVATION EQUIVALENCY PROPOSAL FOR 2004



**Striped Bass Technical Committee
Conference Call
Wednesday April 21, 2004**

TECHNICAL COMMITTEE MEMBERS:

Tom Baum (NJ DFW), Vic Crecco (CT), Jason Dilday (NC DMF), Doug Grout (NH Fish & Game), Des Kahn (DE DFW), Alexei Sharov (MD DNR), Rob O'Reilly (VMRC), Gary Nelson (MA DMF), Najih Lazar (RI DFW), Wilson Laney (US FWS), and Vic Vecchio (NY DEC).

OTHER PARTICIPANTS:

Russ Allen (NJ DFW), Jeff Brust (NJ DFW), Brandon Muffley (NJ DFW), Jim Gilford (SB AP Chair), Andy Kahnle (NY DEC & SB SASC Chair), Michael Doebley (SB AP member), and Megan Gamble (ASMFC).

HISTORY OF NEW JERSEY'S AMENDMENT 6 IMPLEMENTATION PROPOSAL:

In June 2003, the Striped Bass Management Board reviewed the Amendment 6 implementation proposals from Maine to North Carolina. New Jersey submitted a suite of options for the Board's consideration. The Board approved one of the four options submitted because the supporting analyses to prove conservation equivalency to the Amendment 6 standard were not provided. The one option approved by the Board was the Amendment 6 recreational standard (2 fish bag limit with a minimum size limit of 28 inches) and a bonus fishery that uses the coastal commercial quota allocated to New Jersey. The bonus fishery allowed daily limit of one fish and a 28-inch minimum size.

During the December 2003 Board meeting, New Jersey made a motion to allow their 2003 regulations (a daily bag limit of one fish between 24-28 inches and a second fish greater than 28 inches) to rollover into the 2004 fishing year. The Board did not approve the motion.

In March 2004, New Jersey made another motion to maintain status quo with the commitment that the spawning area closures would continue in April and May, as well as the closure of the estuarine waters for taking striped bass during January and February when juveniles are most vulnerable. In addition, New Jersey would forego 180,000 pounds of fish from the bonus fish program (~30,000 fish). Amendment 6 allocates 321,750 pounds to New Jersey's coastal commercial fishery; this is used for their bonus fish program. The Board referred the proposal to the Striped Bass Technical Committee to determine if the proposed changes are conservationally equivalent to the Amendment 6 standards.

Since the Board meeting, New Jersey submitted a proposal that includes the option described above, as well as 7 additional options. On May 25, 2004, the Striped Bass Management Board will review New Jersey's proposal, the Technical Committee's conservation equivalency evaluation, and the Advisory Panel's comments on the proposal.

THE OPTIONS:

Recreational Fishery

- Option 1** (Amendment 6 Standard): 2 fish @ 28"
- Option 2:** 1 fish 24 - <28"; 2nd fish 34" +
- Option 3:** 1 fish 24 - <29"; 2nd fish 35" +
- Option 4:** 1 fish 24 - <30"; 2nd fish 37" +
- Option 5:** 1 fish 26 - <30"; 2nd fish 33" +
- Option 6:** 1 fish 26 - <31"; 2nd fish 35" +
- Option 7:** 1 fish 26 - <32"; 2nd fish 37" +
- Option 8** (Board Referred Option):
1 fish 24 - <28"; 2nd fish 28" +; forego 180,000 lbs of bonus fishery quota; continue spawning closures (April & May); and estuary closures (Jan & Feb).

Bonus Fish Program

- Option 1** (Current Regulation): 1 fish $\geq 28''$
- Option 2** (Small Fish): 1 fish 24 - <28"
- Option 3** (Slot Fish): 1 fish 29" - <35"
- Option 4** (Larger Fish): 1 fish $\geq 29''$, or $\geq 30''$, or $\geq 32''$ etc. - any size greater than 28"

The conservation equivalency of the recreational size limit alternatives was determined based on a modified life table approach (from Crecco 2000) and spawning stock biomass modeling (from Kahn 2003). For the bonus fish program, New Jersey compared percent maximum spawning potential of the standard to each of the options listed above to determine if a quota reduction was needed. See New Jersey's Striped Bass Fishery Proposal For 2004 for a more detailed explanation of the analyses (NJ DFW, April 2004).

TECHNICAL COMMITTEE REVIEW OF THE RECREATIONAL FISHERY OPTIONS:

New Jersey's Marine Fisheries Council recommended that the proposal include additional options for the Technical Committee's conservation equivalency review that would allow for New Jersey to keep a slot limit. Option 1 (Amendment 6 standard) does not include any of the seasonal closures that are currently implemented by New Jersey. Options 2 through 7 are true slot limits. The 8th option is submitted because New Jersey requested the Board's approval and the Board referred it to the Technical Committee.

The proposal includes several analyses of conservation equivalency. The first analysis can be found in Table 2, which provides length frequencies from volunteer anglers. This exercise compares the actual 2002 MRFSS harvest and estimates the percent harvest reduction that would have occurred if each of the options had been in place. The savings gained by the current spawning and estuary closures was estimated using the catch in the surrounding areas during the closures. There was an estimated 9,000 pounds of striped bass not caught during the seasonal closures. To determine the savings, several assumptions were made to compare the harvest in the adjacent areas. Due to these assumptions, the Technical Committee felt reviewing length frequency data was an interesting exercise but could not be used as the sole source to determine conservation equivalency.

Based on the life table and MSP analyses, the only option that was deemed unacceptable as a conservation equivalent was option 8. NJ would have to reduce their harvest by about 26.3% (based on NJs calculations of Bonus and Closure savings which most TC members questioned)-34% to achieve the Amendment 6 standard. A seasonal closure would need to be considered to reduce harvest but there is no further analysis provided because New Jersey is not proposing and does not want to consider a seasonal closure. New Jersey's analysis shows their current regulations result in a harvest that is greater than the Amendment 6 benchmark, meaning status quo is less conservative.

Based on comments submitted by Gary Shepherd, the Technical Committee discussed the derivation of the partial recruitment vector (PR). The Technical Committee spent some time discussing the derivation of the partial recruitment because it is driving fact in determining the results of the analysis. The PR vector is taken from a table created by NJ from size frequency at age data. The size frequencies come from volunteer angler surveys, ocean trawl survey and tagging data. The PR's are comparable to those seen in Delaware.

The Technical Committee had reservations about an analysis for Option 8 that accounts for foregone harvest as a savings because it sets a precedent that could be applied in other commercial fisheries. Additionally, the proposal indicates that the 180,000 pounds would only be foregone in 2004 and does not commit to giving up the same amount in subsequent years. In 2003, 125,000 pounds were taken in the bonus fish program. The remaining quota (after the foregoing 180,000 pounds) allows New Jersey to harvest 141,750 pounds. Even foregoing some of the bonus fishery, New Jersey could still increase their harvest.

Technical Committee Consensus:

- **Option 8 is not conservationally equivalent to the recreational standards in Amendment 6.** To be equivalent, the option needs to include a 26-34% harvest reduction (through seasonal closures or

some other measure). New Jersey's proposal requests that the Technical Committee review option 8 for conservation equivalency compared to the recreational requirements of Amendment 5. Amendment 5 requires 2 fish bag limit and minimum size of 28 inches, meaning the comparison is the same and Option 8 is not conservationally equivalent to the Amendment 5 standard.

- **Options 2-7 are conservationally equivalent to the recreational standards in Amendment 6.** These options for a true slot limit do not require a seasonal reduction because they are conservationally equivalent to the Amendment 6 benchmark.

As with many of the recently submitted conservation equivalency, the Technical Committee is concerned about the cumulative impact of each proposal on the coastwide fishing mortality rate. When modeled the proposals meet the conservation equivalency standard, but it is difficult to predict the actual impact of each proposal, as well as the cumulative impacts of all the recent regulatory changes. The Stock Assessment Report for 2002 indicated the fishing mortality rate is above the target before the Amendment 6 measures were implemented. The status of the population and the influence of the regulatory changes need to be monitored closely.

TECHNICAL COMMITTEE REVIEW OF THE BONUS FISHERY OPTIONS:

The Technical Committee had a lengthy discussion on how the bonus fishery is administered. For more information on New Jersey's bonus fish program, please see <<http://njfishandwildlife.com/bonusbas.hm>>. The greatest harvest taken in the bonus fish program was in 2003 with 125,000 pounds harvested. There was a significant harvest in the bonus fishery in 1995/1996 attributed to the decreased size limit (lowered to 28 inches).

The Technical Committee did not agree with the determination that a quota reduction is not needed for the options with smaller size limits. While it appears that the option is more conservative when comparing the percent maximum spawning potential, the yield needs to also be considered in the analysis. For the smaller size limits the yield is much lower than the standard (1 fish@28"). The yield is different for fish harvested between 24-28" and fish harvested greater than 28" because harvest is taken in a narrow size range which effects the amount of egg production from the population. To implement the smaller size limit and still attain conservation equivalency, New Jersey needs to take a quota reduction.

New Jersey revised the analysis of the bonus fish sizes to calculate the %MSP, yield that will occur with an $F=0.3$, equal harvest and quota reduction required to compare to the standard. The option with 1 fish and a minimum size of 29 inches preserves more % MSP, has a higher yield and higher equal harvest amount and therefore a reduction in the quota is not needed. Although the equal harvest estimates under Options 5 and 6 are higher than the estimates under the Amendment 6 option, this does not mean NJ may increase their quota. A significant quota reduction is necessary for the slot limit options (options 2 and 3 in the above table) and a smaller reduction is needed for a minimum size of 32 and above.

Technical Committee Consensus:

- **Options 5 and 6 are conservationally equivalent to Amendment 6 standards and do not require reductions in current quota.**
- **Options 3,4, 7, and 8 are not conservationally equivalent to Amendment 6 standards unless quota reductions (Table 16) are implemented.**