# Atlantic States Marine Fisheries Commission 

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Paul J. Diodati, (MA), Chair Dr. Louis B. Daniel, III, (NC), Vice-Chair
John V. O'Shea, Executive Director
Healthy, self-sustaining populations for all Atlantic coast fish species or successful restoration well in progress by the year 2015

February 1, 2012

TO: Tautog Management Board
FROM


SUBJECT: Final State Regulations to Implement Tautog Addendum VI
This memo is to provide the Tautog Management Board with an update of state regulations to implement Addendum VI to the Tautog FMP (Addendum VI). Addendum VI reduced the $\mathrm{F}_{\text {target }}$ to 0.15 , which requires a $53 \%$ reduction from average harvest 2008 \& 2009 based on the coastwide F. The Addendum allows for reductions from regional F rates based on assessments at the "same level of precision" as the coastwide assessment. States were required to implement regulations to comply with Addendum VI by January 1, 2012.

The final two state reports detailing new regulations were submitted on January 31, 2012. The full Plan Review Team (PRT) will not have a chance to fully review the regulations prior to the February 8, 2012 Board meeting, but a precursory review indicates that all states have implemented regulations that meet or exceed the requirements of Addendum VI. The PRT will conduct a full review of state regulations in early 2012. Attached are two summary tables that detail 2011 \& 2012 state tautog regulations.
Table 1. Tautog recreational regulations by rtate in 2011 and 2012. States were required to implement new regulations to comply with Addendum VI by January 1, 2012.

|  | 2011 Regulations |  |  | 2012 Regulations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE | SIZE LIMIT | POSSESSION LIMITS | OPEN SEASONS | SIZE LIMIT | POSSESSION LIMITS | OPEN SEASONS | Total \% reduction (Rec \& Com Combined) |
| Massachusetts | $16^{\prime \prime}$ | 3 | Year round | No Change. MA/RI VPA Accepted, F lower than Target. |  |  | 0 |
| Rhode Island | $16^{\prime \prime}$ | $\begin{aligned} & \hline \text { 3(a) } \\ & 3(a) \\ & 6(a) \\ & \hline \end{aligned}$ | Apr. 15 - May 31 <br> July 1 - Oct. 15 <br> Oct. 16- Dec. 15 | No Change. MA/RI VPA Accepted, F lower than Target. |  |  | 0 |
| Connecticut | $14^{\prime \prime}$ | $\begin{aligned} & 4 \\ & 2 \\ & 4 \end{aligned}$ | $\begin{aligned} & \text { Jan.1-Apr. } 30 \\ & \text { July } 1 \text { - Aug. } 31 \\ & \text { Oct. } 1 \text { - Dec. } 6 \end{aligned}$ | 14 | $\begin{aligned} & 4 \\ & 2 \\ & 4 \end{aligned}$ | Jan.1-31 <br> July 1 - Aug. 31 <br> Oct. 1-Dec. 6 | 53\% |
| New York | $14^{\prime \prime}$ | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | $\begin{aligned} & \text { Jan. } 17 \text { - Apr. } 30 \\ & \text { Oct. } 1 \text { - Dec. } 20 \end{aligned}$ | $16^{\prime \prime}$ | 4 | Oct. 8 - Dec. 4 | 48.7\% (Catch Curve) |
| New Jersey | 14" | 4 <br> 1 <br> 6 | Jan.1-Apr. 30 <br> July 16 - Nov. 15 <br> Nov. 16 - Dec. 31 | $\begin{aligned} & 15^{\prime \prime} \\ & 15^{\prime \prime} \\ & 15^{\prime \prime} \\ & 15^{\prime \prime} \\ & 15^{\prime \prime} \\ & 15^{\prime \prime} \end{aligned}$ | $\begin{aligned} & 4 \\ & 4 \\ & 1 \\ & 1 \\ & 1 \\ & 4 \end{aligned}$ | Jan. 1 - Feb. 28 <br> Apr. 1-30 <br> July 17 - Aug. 31 <br> Oct. 17-31 <br> Nov. 1-15 <br> Nov. 13 - Dec. 31 | 53\% |
| Delaware | 14" | $\begin{gathered} 10 \\ 3 \\ 10 \\ 10 \end{gathered}$ | Jan. 1 - Mar. 31 <br> Apr. 1 - May 11 <br> July 1 - Aug. 31 <br> Sept. 29 - Dec. 31 | $16^{\prime \prime}$ | $\begin{aligned} & 5 \\ & 5 \\ & 5 \\ & 5 \\ & \hline \end{aligned}$ | Jan. 1 - Mar. 31 <br> Apr. 1 - May 11 <br> July 17 - Aug. 31 <br> Sept. 29 - Dec. 31 | 53\% |
| Maryland | 14" | $\begin{aligned} & 4 \\ & 2 \\ & 4 \end{aligned}$ | Jan 1- May 15 <br> May 16 - Oct. 30 <br> Nov. 1-30 | $16^{\prime \prime}$ | $\begin{aligned} & 4 \\ & 2 \\ & 4 \end{aligned}$ | Jan. 1 - May 15 <br> May 16 - Oct. 31 <br> Nov. 1-14 | 48.8\% (Catch Curve) |
| Virginia | 14" | $\begin{aligned} & 4 \\ & 4 \end{aligned}$ | Jan. 1 - Apr. 30 June 25 - Dec. 31 | $16 "$ | 3 | $\begin{gathered} \hline \text { Jan. } 1 \text { - Mar. } 31 \\ \text { Sept. } 24 \text { - Dec. } 31 \end{gathered}$ | 50.5\% (Catch Curve) |

(a) = 10 fish max vessel limit during open periods.
Table 2. Tautog commercial regulations by state in 2011 and 2012. States were required to implement new regulations to comply with Addendum VI by January 1, 2012.

|  | 2011 Regulations |  |  | 2012 Regulations |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE | $\begin{aligned} & \text { SIZE } \\ & \text { LIMIT } \end{aligned}$ | POSSESSION LIMITS | OPEN SEASONS | SIZE <br> LIMIT | POSSESSION LIMITS | OPEN SEASONS | Total \% reduction (Rec \& Com. Combined) |
| Massachusetts | $16^{\prime \prime}$ | 40 | Apr. 16-May 15 <br> Sept. 1-Nov. 30 | No Change. MA/RI VPA Accepted, F lower than Target. |  |  | 0 |
| Rhode Island | $16^{\prime \prime}$ |  | Apr. 15 - May 30 <br> Aug. 1 - Sept. 15 | No Change. MA/RI VPA Accepted, F lower than Target. |  |  | 0 |
| Connecticut | 14" | a | $\begin{gathered} \text { Jan. 1-Apr. } 30 \\ \text { June } 15 \text { - Aug. } 31 \\ \text { Oct. } 15 \text { - Dec. } 6 \end{gathered}$ | 14 | a | Jan. 1-31 June $15-$ Aug. 31 Oct. $15-$ Dec. 6 | 53\% |
| New York | 14" | b | Jan. 1 - Feb. 28 <br> Apr. 8 - Dec. 31 | 15' | 25 per vessel (10 with lobster gear) | Apr. 8 - Feb. 29 | 48.7\% (Catch Curve) |
| New Jersey | 14" |  | Jan. 1-15 <br> June 5-30 <br> Nov. 1 - Dec. 31 | $15{ }^{\prime \prime}$ |  | Jan. 1-15 <br> June 22-30 <br> Nov. 9 - Dec. 31 | 53\% |
| Delaware | $\begin{aligned} & \hline 14^{\prime \prime} \\ & 15^{\prime \prime} \\ & 14^{\prime \prime} \\ & 14^{\prime \prime} \end{aligned}$ | $\begin{gathered} 10 \\ 3 \\ 10 \\ 10 \\ \hline \end{gathered}$ | $\begin{gathered} \text { Jan. } 1 \text { - Mar. } 31 \\ \text { Apr. } 1 \text { - May } 11 \\ \text { July } 1 \text { - Aug. } 31 \\ \text { Sept. } 29 \text { - Dec. } 31 \end{gathered}$ | $16^{\prime \prime}$ | $\begin{aligned} & 5 \\ & 5 \\ & 5 \\ & 5 \\ & \hline \end{aligned}$ | Jan. 1 - Mar. 31 <br> Apr. 1 - May 11 <br> July 17 - Aug. 31 <br> Sept. 29 - Dec. 31 | 53\% |
| Maryland | 14" | $\begin{aligned} & 4 \\ & 2 \\ & 4 \end{aligned}$ | Jan 1-May 15 <br> May 16 - Oct. 30 <br> Nov. 1-30 | $16^{\prime \prime}$ | $\begin{aligned} & 4 \\ & 2 \\ & 4 \\ & \hline \end{aligned}$ | Jan. 1 - May 15 <br> May 16-Oct. 31 <br> Nov. 1-14 | 48.8\% (Catch Curve) |
| Virginia | 14" |  | Jan. 1 - Apr. 15 <br> Oct. 3 - Nov. 31 <br> Dec. 16-31 | 15 " |  | Jan. 1-17 Mar. 16 - Apr. 30 Nov. 13 - Dec. 31 | 50.5\% (Catch Curve) |

# Management Options to Reduce the Tautog Harvest in Connecticut as Required by Addendum VI to the ASMFC Tautog FMP 

 2/1/2012
## Introduction:

Addendum VI to the ASMFC Tautog Fishery Management Plan requires states to implement measures to reduce fishing mortality to achieve $\mathrm{F}=0.15$ and allows States to meet the overall reduction in harvest (53\%) by taking reductions in the recreational and/or commercial fishery. Following methodology approved by the ASMFC Tautog Technical Committee, Connecticut will achieve the required reduction through a combination of increases in minimum sizes, reduction in bag limits and seasonal closures, in both the recreational and commercial fisheries.

## Connecticut Regulations for 2011:

minimum size $=14^{\prime \prime}$ in both fisheries
Recreational $=$ Current Closed Seasons
Wave 3: May 1 - Jun 30
Wave 5: Sep 1 - Sep 30
Wave 6: Dec 7 - Dec 31

Current Bag Limit
2 fish in wave 4,
4 fish in all other open seasons

Commercial $=$ Current Closed Seasons
May 1 through June 14, Sept 1 - Oct 14,
and Dec 7 - Dec 31, all dates inclusive.

## Current Possession Limits

Trawl net $=50$ fish
Hook, fish pot, trap net, fyke net, gill net $=25$ fish
Pound net $=12^{1}$
Lobster pot $=10$ fish

## Options to Reduce Tautog Harvest by 53.0\%:

In the Guidance for Addendum VI Harvest Reductions document (ASMFC Tautog Technical Committee, $5 / 19 / 2011$ ), various tables of estimated reductions in harvest were provided.

## Recreational

Guidance document Table 3 provided seasonal harvest reductions as proportions of total harvest per wave-day rates. As agreed by the Technical Committee, closures must be a minimum of 14 consecutive days and catch rates were assumed to be consistent throughout a wave.

Since the overall number of MRFSS Intercepts was relatively low for CT, tautog lengths from the CT Volunteer Angler Survey (VAS) for legal sized fish ( $>=14$ ", $n=539$ ) were used to get an estimate of percent of catch by size to augment the percent of catch by size from the MRFSS website. The Technical Committee approved using the combined MRFSS(CT) \& VAS percent at size to estimate the total reduction for increasing minimum size.

Guidance document Table 4 provided estimated harvest reductions based on seasonal recreational bag-limit reductions. In CT, there are different bag limits during different seasons. Therefore, daily reductions were summed for the period with the same bag limit (i.e. within a season) and combined with bag reductions for that season using the formula provided in the Guidance document:

Bag \& Season Reduction $=($ seasonal reduction $)+\{(1$-seasonal reduction $) *$ bag reduction $\}$

Reductions based upon combined measures (such as increasing minimum size and decreasing bag limit) would be calculated using the formula provided in the Guidance document: Total Seasonal Reduction $=\mathrm{X}+\{(1-\mathrm{X}) * \mathrm{Y}\}$, where $\mathrm{X}=$ the proportion reduction value from the increase in minimum size, and $Y=$ the proportion reduction value from the decrease in bag limit and/or change in season calculated above. Weighted seasonal reductions were then combined for the total recreational reduction.

## Commercial

Guidance document Table 6 provided estimated harvest reductions in CT commercial landings for monthly closures. Percentages were based on average commercial landings (pounds) 2008 \& 2009.

Connecticut has a mandatory logbook program for commercial fishermen that collects trip-level catch and effort information. This data was used to support an analysis to examine possession limit alternatives for various gear types in combination with season alternatives. An analysis using the same methodology was approved by the ASMFC Tautog TC to estimate reductions required for Addendum V; the analysis was updated for 2008-2009 data.

The weights of tautog landed by trip for each gear group were extracted from the 2008-2009 Connecticut commercial fisheries logbook data. The weights were converted to numbers of fish by dividing each trip's landed weight by an average weight per fish. The average weight of a legal-sized fish was calculated from two sources, tautog lengths and weights from the 2008-2009 Connecticut trawl survey and length measurements from the 2008-2009 Connecticut Volunteer Angler Survey (VAS). A length-weight relationship was derived from the trawl survey data and then applied to all legal-sized fish length measurements from the two surveys. The mean weights calculated for legal-size fish from the trawl survey and VAS were 4.49 lbs . and 4.18 lbs ., respectively. The coastwide average weight per fish from MRFSS (2008-2009) is 4.32 lbs . To convert pounds of fish report to numbers, the average weight from the trawl survey was used for the trawl fishery, average weight from VAS was used for the hook \& line fishery, and the coastal average was used for all other gear types.

From the number of trips by gear group and number of fish harvested per trip, gear-specific tables were constructed. Similarly, from the number of trips and fish harvested by gear group and month, gear-specific tables were constructed. These tables were then analyzed using the same methodology described above for the recreational fishery spreadsheet. Harvest reductions for each gear group were computed separately, weighted by the proportion of that gear group to the total harvest, and then summed.

## Total Reduction

Per Addendum VI, reductions can be achieved by implementing measures in either, or both, the recreational or commercial fisheries. The weighted reductions achieved from both the recreational and commercial reduction options are additive. To combine the reductions from the recreational fishery and commercial fishery, the respective average proportion of landings from 2008-2009 were used to weight the respective reductions using the following equation:

Annual reduction $=[(\operatorname{Rec}$ reduction $)(0.9532)]+[($ Comm reduction $)(0.0468)]$

## Changes to Connecticut Regulations for 2012:

Connecticut has instituted a new closed season from February 1- April 30, in both the recreational and commercial fisheries, effective February 1, 2012. Declaration of Regulation Change (12-01) is attached.

Public Hearings have been scheduled to solicit public input on options to reduce harvest during the remainder of the year effective May 1, 2012. Notice to Fishermen is attached. Options to reduce harvest will follow the methodology explained above and be similar to the options proposed and approved by the ASMFC Tautog Technical Committee.

# New York State Department of Environmental Conservation <br> Division of Fish, Wildlife \& Marine Resources 

Bureau of Marine Resources
205 North Belle Mead Road, Suite 1, East Setauket, New York 11733
Phone: (631) 444-0430 • Fax: (631) 444-0434
Website: www.dec.ny.gov

## Memorandum

To: Chris Vonderweidt, FMP Coordinator, ASMFC From: Sandra Dumais Biologist I Marine Resources Subject: New York State Tautog Regulations for 2012 Date: January 20, 2012

In accordance with Addendum VI of the tautog fishery management plan, New York State has finalized its 2012 recreational and commercial tautog regulations (Table 1).

Table 1. New York State Recreational and Commercial Tautog Regulations for 2012

|  | Size | Possession Limit | Open Season |
| :--- | :--- | :--- | :--- |
| Recreational | 16 inches | 4 per person | October 8 - December 4 |
| Commercial | 15 inches | 25 per vessel (10 with lobster gear) | April 8 - February 29 |

New York was required to take a $48.7 \%$ reduction in exploitation which is a $51.6 \%$ reduction in fishing mortality. The reduction was calculated using the Robson-Chapman Catch Curve analysis method approved by the ASMFC Tautog Technical Committee.

The reductions for the recreational fishery were calculated from seasonal closure values for NY from the Table 2 of the ASMFC Guidance Document (Table 2), and a NY Size/Bag reduction table provided to the states by ASMFC (Table 3).

Table 2. NY's Seasonal Closure Values for the Recreational Fishery
$\left.\begin{array}{lccccc} & & \text { \% Red } & \begin{array}{c}\text { Fishable } \\ \text { days in } \\ \text { wave }\end{array} & \text { Days to } & \text { Close }\end{array} \begin{array}{c}\text { \% } \\ \\ \\ \text { Waved }\end{array}\right]$

Table 3. NY's Size/Bag Reduction Table

| Minimum size |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Bag Lim | 14 | 14.5 | 15 | 15.5 | 16 | 16.5 | 17 |
| 1 | $47.47 \%$ | $48.44 \%$ | $49.65 \%$ | $51.53 \%$ | $57.50 \%$ | $58.94 \%$ | $67.26 \%$ |
| 2 | $19.25 \%$ | $20.74 \%$ | $24.49 \%$ | $29.19 \%$ | $41.09 \%$ | $48.27 \%$ | $58.61 \%$ |
| 3 | $5.45 \%$ | $8.70 \%$ | $15.88 \%$ | $20.74 \%$ | $33.85 \%$ | $42.31 \%$ | $53.59 \%$ |
| 4 | $0.00 \%$ | $6.10 \%$ | $13.27 \%$ | $18.17 \%$ | $31.34 \%$ | $39.81 \%$ | $51.80 \%$ |

The total reduction (TR) was calculated using the equation $T R=X+\left[(1-X)^{*} Y\right]$, where $X$ is the reduction from the seasonal closure table and Y is from the bag/size table.

The reductions for the commercial fishery were calculated using monthly landings percentages (Table 6 in the ASMFC Guidance Document) for NY's commercial fishery (Table 4) and reductions from the size limit table (Table 3).

| values for NY's <br> tautog fishery | Month | Monthy \% | No of <br> Days | Daily percent |
| :--- | :--- | :---: | :---: | :---: |
|  | Jan | 6.68 | 31 | 0.22 |
|  | Feb | 1.34 | 28 | 0.05 |
|  | March | 0.06 | 31 | 0.00 |
|  | April | 5.4 | 22 | 0.25 |
|  | May | 13.45 | 31 | 0.43 |
|  | June | 12.21 | 30 | 0.41 |
|  | July | 7.22 | 31 | 0.23 |
|  | August | 5.22 | 31 | 0.17 |
|  | Sept | 6.66 | 30 | 0.22 |
|  | Oct | 16.33 | 31 | 0.53 |
|  | Nov | 16.74 | 30 | 0.56 |
|  | Dec | 8.69 | 31 | 0.28 |

Table 4. Monthly commercial

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## Department of Environmental Protection

## MEMORANDUM

TO: ASMFC Tautog Technical Committee
FROM: Jeffrey Brust, NJ Marine Fisheries Administration
DATE: January 23, 2012
SUBJ: Addendum 6 implementation strategy

As required through Addendum 6 of the ASMFC Tautog Fishery Management Plan, New Jersey has implemented regulations to reduce commercial and recreational harvest by $53 \%$ to achieve the target fishing mortality rate of $\mathrm{F}=\mathrm{M}=0.15$. Specific measures are detailed below.

Recreational reductions were achieved through modification of season length, size limit, and possession limit. Increasing minimum size from 14 " to 15 " achieved $29 \%$ of the required $53 \%$ reduction. The remaining harvest reduction percentage was achieved through additional closed seasons and reduced possession limits as follows, for an overall reduction of $52.99 \%$

New Jersey Recreational Tautog Regulations under Addendum 6

| Wave | 2011 Regulations | 2012 Regulations |
| :---: | :---: | :---: |
| 1 | 4 fish at $14 "$ | 4 fish at $15 "$ |
| 2 | 4 fish at $14 "$ | Mar 1-31: Closed <br> Apr 1-30: 4 fish at 15" |
| 3 | Closed | Closed |
| 4 | July 1-16: Closed <br> July 17+: 1 fish at 14" | July 1-26: Closed <br> July 27+: 1 fish at 15" |
| 5 | 1 fish at 14" | Sept 1-Oct 16: Closed <br> Oct 17: 1 fish at 15" |
| 6 | Nov 1-15: 1 fish at 14" <br> Nov 16+: 6 fish at 14" | Nov 1-15: 1 fish at 15" <br> Nov 16+: 4 fish at 15" |

Reductions in the commercial fishery were achieved through modification of size limits and season lengths. The Technical Committee approved the use of recreational length frequency data to the commercial fishery. As in the recreational fishery, a 15 " minimum size was adopted for the commercial fishery, which accounted for $29 \%$ of the required $53 \%$ reduction. The remaining harvest reduction was achieved through implemented of shortened seasons as follows for an overall reduction of $53.26 \%$.

New Jersey Commercial Tautog Regulations under Addendum 6

| 2011 seasons | 2012 seasons |
| :---: | :---: |
| Jan 1 - Jan 15 <br> Open, 14" minimum size | Jan 1 - Jan 15 |
| Open, 15" minimum size |  |
| Jan 16 - June 5 | Jan 16 - June 21 |
| CLOSED | CLOSED |
| June 6 - June 30 | June 22 - June 30 |
| Open, 14" minimum size | Open, 15" minimum size |
| July 1 - Oct 31 | July 1 - Nov 8 |
| CLOSED | CLOSED |
| Nov 1 - Dec 31 | Nov 9 - Dec 31 |
| Open, 14" minimum size | Open, 15" minimum size |

## MEMORANDUM

TO: Tautog Technical Committee, ASMFC<br>FROM: Scott Newlin<br>DATE: January 26, 2012<br>SUBJECT: State of Delaware Tautog Harvest Reduction for Addendum VI

Addendum VI of the Atlantic States Marine Fisheries Commission (ASMFC) established a $\mathrm{F}_{\text {targel }}=0.15$, in response to the 2011 Tautog stock assessment update estimate that the stock is overfished and overfishing is occurring. To achieve a $\mathrm{F}_{\text {targe }}=0.15$, each state was required to submit options that would achieve a $53 \%$ reduction in harvest.

Delaware presented four options (Table 1 and 2 ) for approval by the technical committee to meet the required reduction. The options presented in table 1 were based on reduction tables that were provided by the technical committee. The options vary the closure of days fished between the summer season and the fall season and reduced bag limit to 3 fish in all seasons. The choice to reduce during either the summer season or the fall season was based on comments received during public hearings. General sentiment received during the hearings also indicated strong support for decreasing the bag limits as low as possible. Table 2 presents options based on increasing the size limit to 16 inches. By increasing the size limit to 16 inches, fewer fishing days are lost and the bag limit is larger. During the public hearings, the for-hire sector indicated that a bag of at least 5 fish would be needed to sustain a viable business. The reduction tables used for the 16 inch tables were developed by the staff at the MidAtlantic council and used the same methodology that was accepted for use when reduction were needed for summer flounder, black sea bass, and scup fisheries.

Delaware enacted Option 3 on February $1^{\text {st }}$ of 2012 with the new regulations going into effect on February $11^{\text {th }}$. The $53 \%$ reduction was achieved through a combination of increasing to a 16 " size limit which achieved a 45\% reduction; decreasing the bag limit from 10 fish to 5 fish which achieved a $2 \%$ reduction and lengthening the spawning season closure by 16 days, which added a $6 \%$ closure.

Option 1 (Reduction in days fished in Wave 4 and reduce to 3 fish in all seasons)

| Jan 1 - Mar 31 | 3 Fish | 14" Size Limit |
| :--- | :--- | :--- |
| Apr 1 - May 11 | 3 Fish | 15" Size Limit |
| Sep 29 - Dec 31 | 3 Fish | 14" Size Limit |

Option 2 (Reduction in days fished in Wave 5 and reduce to 3 fish in all seasons)

| Jan 1 - Mar 31 | 3 Fish | 14" Size Limit |
| :--- | :--- | :--- |
| Apr 1 - May 11 | 3 Fish | 15" Size Limit |
| Jul 1 - Aug 31 | 3 Fish | 14" Size Limit |
| Oct 20 - Dec 31 | 3 Fish | 14" Size Limit |

Table 1. Option based on current size limits.

Option 3 (Reduction in days fished in Wave 4 and reduce to 5 fish and increase Size Limit)

| Jan 1 - Mar 31 | 5 Fish | 16" Size Limit |
| :--- | :--- | :--- |
| Apr 1 - May 11 | 3 Fish | 16" Size Limit |
| Jul 17 - Aug 31 | 5 Fish | 16" Size Limit |
| Sep 29 - Dec 31 | 5 Fish | 16" Size Limit |

Option 4 (Reduction in days fished in Wave 5 and reduce to 3 fish in all seasons and increase size limit)

| Jan 1 - Mar 31 | 5 Fish | 16" Size Limit |
| :--- | :--- | :--- |
| Apr 1 - May 11 | 3 Fish | 16" Size Limit |
| Jul 1 - Aug 31 | 5 Fish | 16" Size Limit |
| Oct 6 - Dec 31 | 5 Fish | 16" Size Limit |

Table 2. Option based on an increased size limit.

MARYLAND
DEPARTMENT OF NATURALRESOURCES

TO: $\quad$ Chris Vonderweidt
FROM: Maryland DNR Fisheries Service
SUBJECT: Maryland 2012 Tautog Regulations

## TIMELINE:

December 16, 2011 - Date the regulation proposal was submitted to the Joint Committee on Administrative, Executive, and Legislative Review
January 27, 2012 - Date the proposal will appear in the Maryland Register
February 27, 2012 - Date the public comment period ends
March 13, 2012
March 23, 2012

- Date the Department can adopt the proposal

April 2, 2012 - Expected Effective Date

## REGULATIONS:

COMAR 08.02.05.20 Tautog.
A. An individual may not catch or possess:
(1) A tautog less than 16 inches total length; and
(2) A tautog from November 15 through December 31.
B. Gear Restrictions. A pot and trap used to catch tautog shall have hinges or fasteners on one panel or door made of one of the following degradable materials:
(1) Untreated hemp or jute string of $3 / 16$ inch in diameter or smaller;
(2) Magnesium alloy fasteners; or
(3) Ungalvanized or uncoated iron wire of 0.094-inch diameter or smaller.
C. Season and Creel Limit.
(1) From May 16 through October 31, an individual may not catch and possess more than two tautog per day.
(2) From November 1 through November 14, and January 1 through May 15, an individual may not catch and possess more than four tautog per day.

## BACKGROUND:

Addendum VI established $\mathrm{F}_{\text {target }}=0.15$ in order to promote stock rebuilding and achieve $\mathrm{SSB}_{\text {target }}$. States are required to implement new regulations to achieve $\mathrm{F}_{\text {target }}$ by January 1, 2012 and may take reductions from the commercial and/or recreational fishery as best meets their individual needs. Reductions to achieve the F target may be achieved through size limit increases, possession limit decreases, seasonal closures, or a combination of factors.

At the November 2011, ASMFC Tautog Management Board meeting, Maryland was granted approval to use a $49 \%$ reduction in exploitation as determined by a Chapman-Robson catch curve estimated F for Maryland alone. Thus, the options presented here are based on a $49 \%$ reduction in the recreational harvest. Proposed options were calculated per the methodology approved by the Technical Committee guidance document prepared in May 2011. Proposed regulations were given a 'risk neutral' rating by the ASMFC Tautog TC in September 2011.

Total reduction $=\mathrm{X}+\left\{(1-\mathrm{X})^{*} \mathrm{Y}\right\}$
where $X=$ season closure, $Y=$ size/bag reduction

Parameters
$X=$
0.1984
$Y=$
36.17\%
\% Reduction 48.83387

2 Fish bag limit - Waves 3, 4, and 5

|  |  | Percent reduction |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Bag size | 14 | 14.5 | 15 | 15.5 | 16 | 16.5 | 17 |
| 1 | $7.00 \%$ | $7.00 \%$ | $14.01 \%$ | $19.94 \%$ | $20.90 \%$ | $21.25 \%$ | $21.74 \%$ |
| 2 | $0.00 \%$ | $6.83 \%$ | $13.84 \%$ | $19.76 \%$ | $20.73 \%$ | $21.08 \%$ | $21.74 \%$ |
| Sum | $\mathbf{0 . 0 0 \%}$ | $\mathbf{1 0 . 9 6 \%}$ | $\mathbf{2 8 . 8 3} \%$ | $\mathbf{3 4 . 8 9 \%}$ | $\mathbf{3 6 . 1 7 \%}$ | $\mathbf{4 7 . 9 6 \%}$ | $\mathbf{5 9 . 6 3 \%}$ |

Estimated seasonal harvest reductions expressed as a proportion of total harvest per wave day rates.

| Wave | $\mathbf{1}$ | $\mathbf{2}$ | $\mathbf{3}$ | $\mathbf{4}$ | $\mathbf{5}$ | $\mathbf{6}$ |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: |
| MD | 0 | 0.002 | 0.0062 | 0 | 0.0022 | 0.0124 |
| Total days in Wave |  | 61 | 61 | 62 | 60 | 30 |
| Days reduced in Wave |  | 0 |  | 0 |  | 16 |
| Total wave reduction |  | 0 | 0 | 0 | 0 | 0.1984 |



## COMMONWEALTH of VIRGINIA

Douglas W. Domenech
Secretary of Natural Resources

Marine Resources Commission
Third Floor
Newport News, Virginia 23607

Steven G. Bowman
Commissioner

January 27, 2012
Memorandum:
TO: ASMFC Tautog Technical Committee
Chris Vonderweidt, ASMFC Coordinator
FROM: Joseph Cimino
Virginia Marine Resources Commission
Technical Committee Representative
SUBJECT: Implementation of measures for the commercial and recreational tautog fisheries, established January 1, 2012, to comply with the requirements of Addendum VI to the Tautog FMP.

On November $8^{\text {th }}, 2011$ the ASMFC Tautog Management Board approved a catch curve analysis and options that met a $50.5 \%$ reduction for Virginia's tautog fisheries, in order to attain the fishing mortality target established in Addendum VI.

The Virginia Marine Resources Commission adopted amendments to Regulation 4 VAC 20-96010 et seq., made effective January 1, 2012. The amendments increased the commercial minimum size limit from 14 inches to 15 inches and increased the closed season an additional 57 days. The commercial fishery will be closed from January 18 through March 15 and May 1 through November 12 (the previous closure was May 1 through November 12). Calculations for how the closed season and increased minimum size limit achieve a projected $50.5 \%$ reduction from the 2008-2009 average commercial landings can be found in the commercial reduction calculations section below.

The recreational fishery increased the minimum size limit from 14 inches to 16 inches, decreased the possession limit from four fish to three fish and increased the closed season by 106 days. The recreational closed season is from April 1 through September 23 (the previous closure was May 1 through June 24). 15 and May 1 through November 12 (the previous closure was May 1 through November 12). Calculations for how the closed season, increased minimum size limit

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and decreased possession limit achieve a projected $50.5 \%$ reduction from the 2008-2009 average recreational landings can be found in recreational reduction calculations below.

## Commercial reduction calculations

The $22.5 \%$ reduction estimated for increasing the minimum size from 14 inches to 15 inches is based on an expansion of the number of fish sampled from the commercial landings at lengths greater than or equal to the target reduction, to total landings in number of fish. Prior to Addendum VI the commercial fishing season was closed from May 1- November 12. The addition of 57 additional closed days from January 18- March 15 (using 28 days in February) provides a $35.9 \%$. This reduction was calculated by converting commercial landings to number of fish using the commercial sampling weight ( 3.6 pounds, close to the average weight of 3.7 pounds used in the Coastwide VPA, which used MRFSS Mid-Atlantic average weight). The monthly 2008-2009 commercial landings averages were divided by the number of days within a month to calculate a daily reduction, in number of fish. That reduction was then applied to the target number, which is $50.5 \%$ less than the 2008-2009 commercial landings average. The combined savings from a seasonal closure and increased size limit are estimated using the formula: Total reduction $=\mathrm{X}+\mathrm{Y}-\mathrm{X} * \mathrm{Y} ; \mathrm{X}=$ the percent reduction value from the seasonal closure, $\mathrm{Y}=$ the percent reduction value from the size limit.

## Recreational reduction calculations

A size limit and possession limit analysis was conducted using calculations created by the MidAtlantic council for MRFSS estimates and raw data. That analysis showed a $30.7 \%$ reduction in landings by increasing the minimum size to 16 inches(from 14 inches) and reducing the possession limit from four fish to three fish. The reduction savings from a closed season were estimated by dividing the 2008-2009 average landings per wave (two month period) by the number of days in each wave to produce a daily savings percentage. Extending the original closed season of May 1- June 24 to April 16- September 23, provides for a savings reduction of $28.6 \%$. The combined savings from a seasonal closure and increased size limit/ reduced possession limit are estimated using the formula: Total reduction $=\mathrm{X}+\mathrm{Y}-\mathrm{X} * \mathrm{Y} ; \mathrm{X}=$ the percent reduction value from the seasonal closure, $\mathrm{Y}=$ the percent reduction value from the size/possession limit.

## Catch curve analysis

Virginia included a cross sectional catch curve analysis as part of the Addendum VI proposal submitted on July 15, 2011. The analysis provided Z estimates for 2008 and 2009 based on a simple linear regression of all fully recruited ages. In a comparison of catch curve estimates, where there is known sampling error, Dunn et al. found that a Chapman-Robson estimator showed less bias and was less likely to underestimate Z in most simulated scenarios. For that reason the TC has accepted Chapman-Robson estimates as the preferred model for catch curve analysis. The methodology was approved as the standard for this addendum by the Technical Committee at their September 2011 meeting. For Virginia, an average of the 2008-2009 Z estimates equal 0.48 . Assuming a natural mortality of 0.15 , the 2008-2009 average F estimate would be 0.33 using Chapman-Robson methods (fishing mortality includes all commercial and recreational landings and $2.5 \%$ of the recreational discards- this is the percentage used in the Coastwide assessment for recreational release mortality). This would require Virginia to take a $50.5 \%$ reduction in exploitation to achieve the Addendum VI target F value of 0.15 .

