

**Tautog Technical Committee Meeting Summary**  
**Baltimore, Maryland**  
**July 12, 2006**

**Meeting Participants:** Ruth Christiansen (ASMFC), Jeff Brust (NJ DEP), Jacqueline Benway (CT DEP), Alice Weber (NY DEC), Michael Luisi (MD DNR), Paul Caruso (MA DMF), Joe Cimino (VA MRC), and Rich Wong (DE DFW)

Welcome and introductions were made shortly after 10:00 am. The meeting was then turned over to Paul Caruso who provided information to the technical committee regarding the recently performed and approved coastwide ADAPT VPA stock assessment model. The model was updated with recently available 2005 state fisheries independent survey indices and 2004 catch-at-age data.

For tautog, a management conundrum exists because there is evidence that shows multiple 'stocklets' exist within the entire coastwide stock for tautog. Science does not have a good handle on the status of individual stocklets. In this sense, tautog doesn't fit into the traditional management mold (analogous to river herring), but the interstate FMP applies coastwide. Some relevant questions to be asked by management are:

- How to get stock recovery on coastal and local scales?
- Should unilateral action be taken to reduce mortality rates?
- Plan addendum to address stock rebuilding on a coastwide scale?

In the updated VPA model, the same configurations were used and the fit changed very slightly with the updated information. It was clarified that ages 8-10 were used because age 7 fish are not fully recruited and age 11 is the year just before plus group (watered down F in the past).

The peer review report recommends using 3-year average because the terminal year is the noisiest.

The updated F for 2004 is 0.28 (also 0.28 for 2003). There is no F estimate for 2005 without 2006 index data (product of VPA model). Regarding the VPA output, a point estimate is used for comparison to the F target of 0.29 versus the bootstrap F estimate, but the bootstrap estimate is used for confidence intervals. Biomass estimates for tautog bottomed out in 1995, went down again in 2001, but seem to be coming up; however, they are still a long way from where the stock started. Spawning stock biomass estimates exhibit the same pattern.

Bootstrap summary report:

- Average F of 0.28 with CI of 0.22-0.34 (overfishing or not overfishing)
- Mean biomass estimates of 11000-15000 mt
- SSB estimates 9000-12000 mt

Jeff Brust provided the Technical Committee with an update on the Beverton-Holt stock recruitment fit model (all parameters straight out of VPA). The VPA covers 23 years (22 yrs of data) and 12 age classes of fish. Results from the spawn-recruit model were:

- MSY of 2317 mt
- Fmsy of 0.15
- Fmax of 0.382

Fishery selectivity indices were then updated on spot with VPA output results providing the following new estimates (results from the spawn-recruit model):

- MSY of 2534 mt
- Fmsy of 0.21
- Fmax of 0.694

The coastwide stock of tautog experienced 8-10 years of below expected recruitment. From the VPA output data, the following estimates can be made for the coastwide tautog stock (from YPR modeling):

- F01 of 0.229
- Fmax of 0.776
- F40% of 0.305
- Fmsy of 0.268

After the updates by Paul Caruso and Jeff Brust, the Technical Committee moved on to discuss the strawman recommendations/memo drafted by Paul Caruso. It was felt that the most controversial draft recommendation made was for individual states to take more drastic reductions because they did not do so before (2 states affected) and/or because harvests in those states are going up (5 states affected). Singling out a state for management measures will likely not be feasible and/or not work; singling out states will likely not miraculously double the stock size for tautog either. Justification of such a recommendation would be difficult because the Technical Committee does not have individual F rates for states (based on catch rates).

While the Technical Committee made the conclusion that individual state assessments were acceptable for determining trends, the peer review panel did not approve the individual state reports. This is consistent with the peer review findings that the local F's aren't comparable with the VPA F. The Technical Committee expressed concern over the use of 3-year averages and high possession limits with short fishing seasons.

After discussing the memo to Management Board, the Technical Committee moved on to discuss the list of concerns provided by Deb Pacelio at the beginning of the meeting (Paul Caruso provided copies). Regarding the live market issue, it was noted that RFA is currently trying to get tautog game fish status in New Jersey because of huge live landings. This seems to be an issue primarily in New York and New Jersey. Non-reporting is a huge issue; therefore, there is no real way to capture the extent of live market issue. The Technical Committee felt that in order to better account for live landings, the VPA model could be run with a 'fudge factor' of 5%, 10%, and 20% in commercial kills in order to estimate the impact on the overall F rate.

Regarding the issue of collecting the required number of age samples (for the development of age key structures), the Technical Committee felt that Connecticut could get more creative in the way they collect their data (i.e. visit headboats). Also, it was felt that as long as effort continued to be made by Connecticut to collect age samples, not collecting the required 200 samples was not a significant issue. It was stressed by Technical Committee members that the data collected was not used as a length-frequency representation for catch, but only for making the age key.

In conclusion, the Technical Committee would like to investigate the use of other models for the next tautog stock assessment. The Technical Committee feels more work is needed to adequately measure the S/R and YPR modeling information as well as to recommend appropriate targets and thresholds.