



# Atlantic States Marine Fisheries Commission

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## Atlantic Menhaden Technical Committee Meeting Summary

Baltimore, MD  
September 19, 2012

Technical Committee Members: Trish Murphey, Jeff Brust, Matt Cieri, Alexei Sharov, Micah Dean, Amy Schueller, Jason McNamee, Behzad Mahmoudi, Joe Smith, Rob Latour, Joe Ballenger, Derek Orner, Mike Celestino

ASMFC Staff: Genny Nesslage, Mike Waine, Melissa Paine, Jeff Kipp

Audience: Ron Lukens, Alison Fairbrother, Jordan Brown

### Biological Samples

- Mike W – draft Amendment 2 recently went to public comment. Board removed projections from the document as a TAC setting method. Also, the board is considering making biological sampling a ‘mandatory’ thing...right now it’s done voluntarily.
- Mike W - [reviews table of target # of samples for bait fishery by state from 1994]
- Joe S – back in 1994, the target #s for bait fishery were extrapolated from the sampling intensity on the reduction fishery (i.e. one 10-fish sample per 515mt landed)...this gives a total target of 88 ten-fish samples for bait fishery. We’ve exceeded this in recent years (~113-165/yr), but we may need to address the distribution/stratification of the sampling (i.e. some years there are little to no samples from New England)
- Mike W – we could just set the target proportional to the level of the bait landings, as is done in other fisheries (e.g., weakfish)
- Amy – concerned that since 88 is less than what we’ve currently been collecting...don’t want to go backwards
- Matt – if it’s difficult to get samples directly from the fishery, we can also intercept samples from the transport vessels/trucks
- Alexei – if the age structure of the northern bait fishery spans older ages, using the sampling intensity from the southern bait fishery may not be appropriate
- Amy – agree with Alexei
- Jay – offers to do a power analysis to see what kind of sample size would be appropriate
- Alexei – propose finding year(s) in the past where we achieved reasonable CVs and use that as an additional measure of adequate sampling intensity
- Joe – in the past, we’ve done an analysis that showed the variance between samples was greater than within sample variance. This is why we moved from 20-fish to 10-fish samples in the 1970s.
- Rob – the most important variables to consider are spatial and temporal

- Mike W – sounds like Rob is proposing stratifying our sampling by area and season.
- Matt – since we don't structure our catch-at-age seasonally, it makes sense to make sure we have good coverage of the full landing season. If our samples are coming from a narrow time period and we have a single annual catch-at-age, there will be problems.
- Matt – If we add spatial structure to the assessment model, we will need plan our sampling accordingly. We should figure out what we want to do with our catch-at-age and base our sampling design on that.
- Alexei – What portion of the trips are sampled in the bait fishery?
- Joe – about 40%
- Amy – can we go through the power analysis & look at historical bait variance for the current document and then revisit the sampling strategy when we go through the next benchmark assessment?
- Mike W – This document is out for public comment now, & the board is finalizing its decision in December, so the board would have to have any new information before then. But, if new sampling targets are incorporated in this amendment, it becomes part of the compliance. So, if sampling strategy changes through a new benchmark, an addendum would be required to change the compliance requirement
- Alexei – as a common sense approach, science centers have established a target sample size per X mt landed for several species...we could adopt this as a minimum
- Jeff – so Jay will do the analysis, and have something for the board before Dec. We can have a call prior to then to discuss the results. Better to do it based on an appropriate #/MT of landings, not an absolute # of samples.
- TC – [*agrees to this approach*]
- Amy – when will this need to go to the board?
- Mike W – probably need to get to the board by Dec 1<sup>st</sup>

#### **Alternate scenarios of Reduction/Bait Fisheries**

- Jeff – the reduction fishery harvests younger/small fish, while the bait fishery harvests older/larger fish...we've been asked to evaluate the impact on SSB with alternative ratios of Red/Bait.
- Rob – we could look at model-based SSB & R, and place years on data points and look at capacity of recruitment at different stock sizes. Which regimes were more favorable for recruitment?
- Alexei – could we use projections?
- Genny – we had concerns that the model was not adequately representing stock dynamics...which would leave little confidence in projections.
- Amy – right now, selectivities between the two fleets are similar, although there have been discussions about changing them...how does the board expect us to evaluate this?
- Matt – we may not be able to use our current selectivities to make projections, but we could provide a qualitative description

- Behzad – thought the board was looking for some kind of a SSB-per-Recruit analysis, with 2 different selectivities?
- Alexei – but you still have to use selectivities, which we have doubts about
- Jeff – [to Matt] could we actually provide a qualitative answer to address the board’s charge?
- Matt – just describe that even though there are far more fish killed in a MT of young/small fish, there is some ( large) portion of those fish that would have died due to M
- Jeff – but does that give the board an answer?
- Genny – could we provide a couple scenarios for selectivity?
- Matt – won’t they ask which scenario is more likely?
- Amy – we don’t know, but at least it would provide the limits of what could occur.
- Genny – at least it would show how different the two selectivity scenarios are
- Alexei – what about a simpler approach: forget about selectivities...just use your age structure from the bait & reduction fisheries...compare the savings you would get by reducing X mt from either fishery.
- Genny – not sure I follow...do you apply the M-at-age to the catch at age?
- Alexei – take 2010 total landings from bait & reduction. Take age structure from each fishery. Convert to catch at age. 100mt would be equivalent to so many fish, apportioned out by year class. Then apply a presumed M, and see how many fish you will have in X number of years. Then apply maturity ogive to get at reproductive capacity.
- Jeff – does this sound like a good idea?
- TC - [*agrees to this approach. Alexei volunteers to do the analysis and present results to the TC in time to deliver to the board before the Dec meeting*]

#### **SAS Chair**

- Jeff – does anyone want to volunteer?
- Amy – [volunteers to be SAS chair]
- Jeff – what about your commitment to Gulf Menhaden? Will you be able to run SAS meetings in 2013?
- Amy – believes it will be possible

#### **Other Business**

##### *Alternate Lead Analyst*

- Genny – the ASC came up with a list of people who could take over as lead analyst, if Beaufort were unable to do fully participate in a 2014 benchmark.
- Genny – the list: Micah, Jay, Alexei, Genny, Gary Nelson, Mike Murphy, Matt, Rob, Laura Lee
- Genny – any subtractions/deletions?
- [*lots of nervousness about competing responsibilities from everyone on the list*]
- Amy – the concern was that over the next year, while Beaufort is tied up with Gulf Menhaden, we’ll need someone else to help out with modeling. BUT, 2013 will likely be dedicated to assembling and looking at the data & the model changes can be addressed in 2014, when Beaufort becomes more available. This is just a backup.

- *[group discusses who should be on the list and agrees to make the board aware of the pros/cons of moving people away from other tasks to focus on menhaden]*

#### *Adult Index*

- Mike – the board is interested in enhancing the adult index...there may be a requirement for any state with fixed gear to record catch and effort data.

#### *Aerial Survey Design*

- Rob – Tom G. is working on the design of the aerial survey. Our plan was to have him present to the TC so they could provide feedback. Could we place this on the agenda in a future meeting?
- Mike W – February at the earliest