



# Atlantic States Marine Fisheries Commission

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## MEMORANDUM

December 5, 2012

To: Atlantic Menhaden Management Board  
From: Atlantic Menhaden Technical Committee  
RE: Technical Committee Report to the Board on Recommendations for Draft Amendment 2

The Atlantic Menhaden Technical Committee (TC) met by conference call on November 21 and 29, 2012 to discuss biological implications of the options outlined in Draft Amendment 2 to the Menhaden FMP. In addition, the TC addressed Board assigned tasks of identifying appropriate biological sample size and implications for overall reproductive potential from various harvest allocation strategies. Summaries of the discussions and appropriate TC recommendations are presented below.

### **Agency participants**

Matt Cieri  
Joey Ballenger  
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Amy Schueller  
Joe Smith  
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Mike Waine  
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### **Other participants**

Jud Crawford  
Ron Lukens  
Jeff Kaelin  
Sean Gehan  
Ken Hinman  
Steve Meyers

### ***Biological sampling requirements***

The TC conducted an analysis using data from recent years to determine the number of biological samples required to characterize bait fishery landings (McNamee 2012). Sampling requirements were evaluated for several spatial and temporal breakdowns, and for varying levels of precision, to determine sample sizes necessary to characterize the size and age structure of the bait fishery. Generally speaking, sample sizes needed to characterize size structure in time were larger than those needed to characterize size structure by age, and sampling requirements were larger in the Chesapeake Bay (CB) region than New England (NE) and Mid-Atlantic (MA) regions. Higher precision also required larger sample sizes. Sample size requirements for the combined NE-MA region were approximately 25% to 100% greater than current sampling levels, while sample requirements for the CB region were approximately 4 to 40 times current sampling levels. Significantly increasing sample sizes would be burdensome for samplers, the vessels being sampled, and the biologists who prepare and age the samples. Therefore, the TC

recommended minimum sampling levels that are modestly larger than those seen in recent years. Following a number of years of data collection at the recommended level, a re-analysis can be performed to see if the sampling is reaching a desired level of precision. The additional samples will allow better estimation of biological characteristics of the catch without undue burden on agencies and the fishery. The TC also determined that the required samples should be distributed across the fishery (all gears, all states) relative to their contribution of the total landings in order to get as accurate a representation of the fishery as possible. The recommended annual sampling requirements for the bait fishery are one ten-fish sample per 300 MT landed in the New England and Mid-Atlantic regions, and one ten-fish sample per 200 MT landed in the Chesapeake Bay region.

The TC did not conduct an analysis to determine sample size for the reduction fishery. Reduction fishery sampling intensity is described in the February 2004 benchmark stock assessment report (Section 5.1.1.4; ASMFC 2004). Biological sampling is based on a two-stage cluster design, and it is conducted over the range of the fishery, both temporally and geographically (Chester 1984). The TC recommends sampling of the reduction fishery is maintained at least at the current sampling intensity until a thorough evaluation is conducted by the TC.

#### ***Relative spawning potential of the bait and reduction fisheries***

The TC conducted an analysis to estimate the relative reproductive potential of the bait and reduction fisheries (Sharov 2012). For each fishery, one ton of harvest was deconstructed to number of fish at length using average length frequency distributions, weight at length estimates, and length at age estimates from biological sampling for the period 1986-2011. The numbers at age were multiplied by fecundity at age estimates to estimate total fecundity at age, and this was summed across ages to estimate total fecundity for one ton of harvest. This provided an instantaneous estimate of reproductive potential per ton of harvest for each fishery. Results showed that the reproductive potential of the bait fishery is approximately double that of the reduction fishery on a per ton basis. This result is logical seeing as the bait fishery tends to harvest older, more mature fish.

The analysis of instantaneous reproductive potential (above) does not take into consideration contributions to the reproductive potential as fish age and spawn in successive years. To address this scenario, numbers at age in year one of the analysis were decremented by age-specific natural mortality rates until each cohort reached age 8. Reproductive potential in each year was estimated as the number at age times fecundity at age. Overall “lifetime” fecundity of one ton of harvest was then found by summing across ages and years. This method assumes a total harvest moratorium ( $F = 0$ ) to allow the maximum number of fish to reach age 8 (best case scenario). Results indicate overall lifetime reproductive potential of the bait fishery is still approximately 10% greater than the reduction fishery.

The analyses above indicates that if all fish “saved” were able to reach maximum age and spawn multiple times, per-ton reproductive potential of the bait fishery is approximately 10% greater than the reduction fishery. Alternatively, if all fish “saved” spawned only one additional time, then the per-ton reproductive potential of the bait fishery is approximately 100% higher than the reduction fishery. Neither of these scenarios is likely, but they are useful in providing bounds on

the relative reproductive potential of the two fisheries. In order to determine the true relationship, it is necessary to have the actual fishing mortality rate which cannot be known for the future.

The TC identified three potential scenarios that the Board might want to consider when determining the most appropriate harvest allocation. These include harvest reductions proportional to the overall harvest of the two fisheries; harvest reductions proportional to the overall spawning potential of the fishery; and harvest reductions to achieve the maximum benefit to spawning potential. Specific results of these options depend on a number of input options, including the definition of recent harvest (3 year or 5 year average), the allocation among sectors (3 year, 5 year, 7 year, max 3 years, etc.), and the percent harvest reduction (represented in Amendment 2 as multipliers of 1.0, 0.9, 0.8, 0.75, 0.5 which correspond to harvest reductions of 0%, 10%, 20%, 25%, and 50%, respectively), all of which are included for Board consideration in Draft Amendment 2, as well as the ratio of reproductive potential (range 1.1:1 to 2:1; Sharov 2012).

Examples of the possible results from these options are summarized in Tables 1 and 2. Both examples assume a baseline landings of 213,500 MT (3 year average), and historic allocation of 21.55% for the bait fishery and 78.45% for the reduction fishery (3 year average), and a 10% harvest reduction. Table 1 assumes a ratio of reproductive potential of 1.1:1, while Table 2 assumes a ratio of 2:1.

Under option 1, each fishery would take an equivalent proportional reduction in harvest (10% in this example), resulting in an overall 10% reduction in harvest and 10% savings in reproductive potential. Under option 2, overall reproductive potential is calculated as the reproductive potential per ton from each fishery multiplied by the number of tons harvested in that fishery and summed across the two fisheries. In this scenario, the bait fishery would take a slightly larger proportional cut in harvest because it contributes slightly more to the overall reproductive potential of the fishery. The overall harvest cut is still 10%, and the savings in reproductive potential is also approximately 10%. Under option 3, the maximum savings in reproductive potential is achieved by taking the entire harvest reduction (21,350 MT) from the bait fishery because of that fishery's higher reproductive potential. The bait fishery takes a very large proportional reduction (46%), but the additional savings in reproductive potential is only slightly higher than the other options (11.5% for option 3 in Table 1 and 16.4% for option 3 in Table 2 compared to 10% for options 1 and 2 in both tables). Note, however, that the reproductive potential savings achieved under this scenario could be achieved any number of ways (*e.g.* 23,485 MT – 42,700 MT reduction from reduction fishery only) but would result in a larger proportional harvest cut (multiplier < 0.9 in this scenario).

**Table 1.** Reproductive savings for three scenarios assuming a reproductive potential of 1.1 : 1.

Input assumptions					Option 1 – Reductions proportional to overall harvest					
Landings	213,500					Bait	Reduct	Total		
						Landings	41,408	150,742	192,150	
		Bait	Reduction			Fecundity	1.1	1		
% of total	0.2155	0.7845				Repr potent.	45,549	150,742	196,291	
		Bait	Reduction			Harv diff	4,601	16,749	21,350	
Fecundity	1.1	1				% harv diff	0.1	0.1	0.1	
						Fec diff	5,061	16,749	21,810	
Multiplier	0.9					% fec diff	0.1	0.1	0.10	
Option 2 – Reductions proportional to reproductive potential					Option 3 – Maximize reproductive potential savings					
	Bait	Reduct	Total	Harv diff		Bait	Reduct	Total		
			192,150	21,350		Landings	24,659	167,491	192,150	
						Fecundity	1.1	1		
						Repr potent	27,125	167,491	194,616	
Harv diff	4,954	16,396	21,350			Harv diff	21,350	0	21,350	
% harv diff	0.10767951	0.09789046	0.1			% harv diff	0.4640	0		
Fec diff	5,450	16,396	21,845			Fec diff	23,485	0	23,485	
% fec diff	0.10767951	0.09789046	0.10			% fec diff	0.4640	0	0.1077	
New harv	41,055	151,095					23,485	<--- This maximum fecundity savings could		
Fecundity	1.1	1						actually be achieved any number of ways, but		
Repr potent	45,160	151,095						it would require a larger overall % harvest cut.		

<b>Table 2. Reproductive savings for three scenarios assuming a reproductive potential of 2 : 1. Input assumptions</b>				<b>Option 1 – Reductions proportional to harvest</b>					
Landings	213,500				Bait	Reduct	Total		
		Bait	Reduction		Landings	41,408	150,742	192,150	
% of total	0.2155	0.7845			Fecundity	2	1		
					Repr potent.	82,817	150,742	233,558	
		Bait	Reduction		Harv diff	4,601	16,749	21,350	
Fecundity	2	1			% harv diff	0.1	0.1	0.1	
					Fec diff	9,202	16,749	25,951	
Multiplier	0.9				% fec diff	0.1	0.1	0.10	
<b>Option 2 – Reductions proportional to reproductive potential</b>				<b>Option 3 – Maximize reproductive potential savings</b>					
	Bait	Reduct	Total	Harv diff		Bait	Reduct	Total	
			192,150	21,350		Landings	24,659	167,491	192,150
						Fecundity	2	1	
						Repr potent	49,319	167,491	216,809
Harv diff	7,570	13,780	21,350		Harv diff	21,350	0	21,350	
% harv diff	0.16454134	0.08227067	0.1		% harv diff	0.4640	0		
Fec diff	15,141	13,780	28,920		Fec diff	42,700	0	42,700	
% fec diff	0.16454134	0.08227067	0.11		% fec diff	0.4640	0	0.1645	
New harv	38,439	153,711				42,700 <--- This maximum fecundity savings could			
Fecundity	2	1				actually be achieved any number of ways, but			
Repr potent	76,878	153,711				it would require a larger overall % harvest cut.			

## ***Biological implications of Amendment 2***

### **Issue 1: SSB Reference**

The TC recommends switching to the MSP-based biomass reference point to maintain consistency with the fishing mortality reference point. The TC also notes that if MSP-based biomass reference points are adopted, the TC would have to re-evaluate stock status relative to the new biomass reference point.

### **Issue 2: F Reduction Schedule**

The TC notes that overfishing is expected to be occurring, so reductions in fishing mortality are required to end overfishing. However, determining a timeline to meet the fishing mortality target reference point is difficult since the 2012 stock assessment update does not provide reliable information on current fishing mortality rates. In other words, overfishing is occurring, but the magnitude of any required fishing mortality reduction is unknown. While the TC supports implementing constraints on harvest (see Issue 5), the recommendation is that determination of a schedule to achieve the F target is delayed until the next benchmark assessment is completed in 2014.

### **Issue 3: Quota Monitoring**

The TC recommends improved harvest reporting requirements be implemented for the bait fishery if a quota management option (*i.e.* TAC) is chosen. The reporting system selected has little biological implications for the stock, other than the requirement that it minimizes the potential for overharvest (*e.g.* annual reporting is not sufficient), and it is consistent with the quota management option selected.

### **Issue 4a: Biological Data**

The TC conducted an analysis to determine the minimum number of biological samples required to adequately characterize size and age structure of the bait fishery (McNamee 2012). The TC recommends that biological sampling of the bait harvest be mandatory for all states, with a minimum sampling intensity of one ten-fish sample per 300 MT landed for the New England and Mid-Atlantic regions and one ten-fish sample per 200 MT landed in the Chesapeake Bay region. Samples should be collected from all gears at the above mentioned intensities, not just purse seine vessels. The TC will re-evaluate these sampling levels after a few years of data collection to confirm their appropriateness.

The TC did not conduct an analysis to determine sample size for the reduction fishery. Reduction fishery sampling intensity is described in the February 2004 benchmark stock assessment report (Section 5.1.1.4; ASMFC 2004). Biological sampling is based on a two-stage cluster design, and it is conducted over the range of the fishery, both temporally and geographically (Chester 1984). The TC recommends sampling of the reduction fishery is maintained at least at the current sampling intensity until a thorough evaluation is conducted by the TC.

### **Issue 4b: Adult Survey Index**

The TC recommends that all states with fixed gear fisheries (*e.g.* pound nets) collect catch and effort information for menhaden in an attempt to improve the index of adult abundance.

Biological samples from these fisheries would also be required to characterize the catch (see Issue 4a).

### **Issue 5: Total Allowable Catch Specification (TAC)**

Despite uncertainty in terminal year estimates of fishing mortality, the 2012 stock assessment update indicates that overfishing is occurring. Without substantial increases in recruitment, harvest levels at or above those observed in recent years will continue overexploitation of the stock. Constraining harvest to levels less than recent average landings will reduce the risk of overfishing. A large harvest reduction would be more risk averse than a small reduction and would provide greater potential for increasing spawning stock biomass. Without knowing the ratio of  $F_{\text{current}}$  to  $F_{\text{target}}$ , the TC cannot recommend a specific percent reduction, but advises that the reduction selected should be consistent with the Board's tolerance of risk.

### **Issue 5a. TAC specification % to base closure**

The TC expressed concern that quota monitoring of the bait fishery may be less reliable in the early years as users get used to a new data reporting system. During this period, it is recommended that the fishery be closed at a lower percentage of the TAC to account for late reports and other non-compliance that might result in total harvest exceeding the TAC. In subsequent years, as compliance improves, the fishery could be closed at a higher percentage of the TAC.

### **Issue 5b. TAC setting method**

The TC recommends that TACs should be based on the best available science. The uncertainty surrounding the 2012 stock assessment update precludes the use of projections at this time; however, in the future, if a desired level of certainty is achieved regarding stock assessment results, then projections would be more appropriate than the ad-hoc method for establishing a TAC.

### **Issue 5c: TAC Allocation**

Generally, harvest allocation has little biological implications, and the TC does not recommend any particular strategy over the others. However, it is noted that allocation strategies with fewer "compartments" will promote a "race to fish" situation that could focus effort over small temporal and geographic scales. This intense harvest may be detrimental to local abundance and size/age structure that may have larger implications for the stock as a whole.

### **Issue 5d: Quota Transfers**

The TC concluded that quota transfers are acceptable, but recommends that requests for quota transfers be reviewed by the TC if either party requests it.

### **Issue 5e: Quota Rollover**

The TC determined that quota rollovers are acceptable, but recommends putting bounds on the maximum allowable rollover in a given year. Large rollovers that significantly increase an annual harvest limit could be detrimental to the stock. The TC does not recommend a specific ceiling, but suggests that the rollover ceiling corresponds to the Board's accepted level of risk. It may be most advantageous to consider rollovers on an annual basis to determine most appropriate strategy.

### **Issue 5f: Quota Payback**

Quota paybacks are an important accountability measure and protect the stock against overharvest. The decision to require payback, and the amount to be paid back, should be based on the Board's accepted level of risk.

### **Issue 5g: Bycatch Allowance**

To minimize the potential for overharvest, the TC recommends the Board consider a set-aside of the TAC for bycatch purposes (*i.e.* the bycatch is not in addition to the TAC). Additionally, appropriate harvest reporting should be required for the bycatch fishery to monitor landings, and a mechanism should be established to close the bycatch fishery if/when the TAC is reached.

### **Issue 5h: TAC Set Aside for Small Scale Traditional Fishery**

The TC struggled with defining a small scale traditional fishery. Biological implications of a small scale fishery set aside are difficult to evaluate without knowing the magnitude of the set aside. Concerns include effects on local abundance and size/age structure, and whether unused quota is re-allocated to large scale fisheries or rolled over to the following year.

### **Issue 5i: TAC Set Aside for Episodic Events**

Concerns for this issue were similar to those for Issue 5h, the small scale fishery set aside.

### **Issue 6: Chesapeake Bay Reduction Fishery Cap**

The TC stands by its previous recommendation that, given the current fishery and history of landings, there has not appeared to be any biological benefit to the Chesapeake Bay Reduction Cap since it was implemented. However, if the distribution of the industry or biological information were to change, the utility of a harvest cap would need to be reconsidered.

### **Issue 7: *De Minimis* (Section 4.5.3)**

The TC had no concerns with allowing states to apply for *de minimis* status or how *de minimis* is defined. It was agreed that when landings are low, exemptions to biological data collection are acceptable. However, the TC determined that biological samples from *de minimis* states would be very important during an episodic event that significantly increased landings for that state. As such, the TC suggests the Board require *de minimis* states to adhere to timely quota monitoring which would allow them to identify an episodic event as it occurred and collect the appropriate level of biological samples.

### **Recommendations for Federal Waters**

The TC felt this was favorable to maintain the integrity of Atlantic Menhaden Fishery Management Plan.

## References

- Atlantic States Marine Fisheries Commission (ASMFC). 2004. Atlantic Menhaden Stock Assessment Report for Peer Review. Atlantic States Marine Fisheries Commission, Stock Assessment Report No. 04-01 (supplement), 145 p.
- Chester, Alexander J. 1984. *Sampling statistics in the Atlantic menhaden fishery*. NOAA/National Marine Fisheries Service, (NOAA Technical Report NMFS, 9), 22p.
- McNamee, Jason. 2012. Atlantic menhaden age sampling design: Power analysis. Report to Atlantic Menhaden Technical Committee. Nov. 2012. 18 p.
- Sharov, Alexei. 2012. Comparison of age structure in menhaden reduction and bait fisheries and evaluation of potential reproductive capacity of harvested fish. Report to Atlantic Menhaden Technical Committee. Nov. 2012. 13 p.



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## MEMORANDUM

November 19, 2012

To: Atlantic Menhaden Management Board  
From: Atlantic Menhaden Advisory Panel  
RE: Advisory Panel Report to the Board on Recommendations for Draft Amendment 2

The Advisory Panel met on November 19, 2012 to make recommendation to the Board on the Draft Amendment 2 to the ISFMP for Atlantic Menhaden. Panel members in attendance represented the conservation community, commercial harvesters (for bait and reduction), bait dealers, and recreational fishermen. The following is a summary of the meeting.

### Attendees

#### *Advisory Panel Members*

Bill Windley (MD), Chair  
Ron Lukens (VA)  
Jimmy Kellum (VA)  
Jeff Kaelin (NJ)  
Brian Tarbox (ME)

Don Swanson (NH)  
Jennie Bichrest (ME)  
Ken Hinman (VA)  
Tom Ogle (SC)

*ASMFC Staff*  
Mike Waine  
*Public*  
Ed Blaine

### Amendment 2

#### **(Section 2.5) Issue 1: SSB Reference**

Some AP members felt the current SSB reference points are robust, so they favor status quo.

Other AP members were in support of Option B, because the Technical Committee recommended resolving the technical mismatch. Changes in the reference points were originally brought up by the peer review and the TC's recommendation was in response to that.

#### **(Section 2.5) Issue 2: F Reduction Schedule**

Some AP members support Option E, because they do not feel like other ASMFC species are managed at the target, and it is unnecessary to manage Atlantic menhaden at the F target.

Other AP members support managing menhaden to the target and support option C, because it is the most reasonable and the fastest for achieving the F target. Five years makes sense because the opportunity to start management changes now will allow for a check-in and adjustment of measures when the next benchmark occurs in 2014.

Some members supported a combination of Option B and Option E, achieving the F target 3 years after the next benchmark stock assessment.

#### **(Section 3.6.1.2) Issue 3: Quota Monitoring**

There was consensus for mandatory catch reporting that is both comprehensive and timely.

Some AP members recommended daily reporting by both dealers and harvesters and to take that option out to public comment through a follow-up addendum.

Some AP members also support option B, because this option gives the states the most flexibility for the current reporting structure.

AP members commented that in the Atlantic herring fishery, weekly reporting by dealers makes it a challenge to manage at the quota. They implied that daily reporting would be the best approach. They also recommended developing a timeline for the SAFIS transition, and that option B could be used as every state transitioned to the SAFIS system.

#### **(Section 3.6.2.1) Issue 4a: Biological Data**

The AP reached consensus that the Board should implement mandatory biological monitoring to obtain age and length information over the geographical range of this species.

They added that the sampling should not only be where the fishery occurs, but across the entire range of Atlantic menhaden.

In most of the state agencies, personnel are spread thin, and the industry should be a partner in obtaining the target samples.

#### **(Section 3.6.2.2) Issue 4b: Adult Survey Index**

There was consensus recommending option B to enhance the adult survey index.

Some AP members suggested that aerial surveys be implemented to annually assess the adult abundance coast wide, and noted that more scientifically sound information is important for this resource.

#### **(Section 4.2.1) Issue 5: Total Allowable Catch (TAC)**

The AP had consensus for option B.

##### **(Section 4.2.1.1) Issue 5a. TAC Specification**

Once again, the AP emphasized that good monitoring is crucial for this closure mechanism to work.

Some AP members support option C, because the reporting structure for the reduction fishery is very good, and therefore a 5% buffer is plenty. This option works well with great reporting and has been successful in the Atlantic herring fishery. These members suggested that 100% of the TAC should be harvested, so the rollover mechanism is important. The combined reduction fishery and bait fishery purse seines, that report on a daily basis, form the lion share of what else is there, so what is left will not have a large impact on the outcome.

Other AP members support option B, because the bait fishery reporting is not complete. Considering that the reporting structure could change substantially, a larger buffer makes the most sense at this point.

**(Section 4.2.1.2) Issue 5b. TAC setting method**

The AP recommends using the Ad hoc approach, but if and when projections are developed that could be used to set a TAC, those should be considered in the future.

Considering the difference of opinion regarding the selection of a TAC, the AP elected to state their positions individually.

Don Swanson (NH) was in support of option B.4 and a 0.75 multiplier.

Ken Hinman (VA) had no preference on a 3 year or 5 year average, but the choice of a multiplier should at least be 0.75. He pointed out that, using the ad hoc ORCS approach, considering the dire condition of the menhaden stock – overfishing and overfished - coupled with its vital contributions to ecosystem health, suggests the catch be reduced by at least 25%.

Jenny Bichrest (ME) was in support of the 3 year average, and a multiplier of 1, meaning 0% reduction.

Brian Tarbox (ME) was in support of the 3 year average, and a multiplier of 1, meaning 0% reduction. Given that there is no identifiable spawner/recruit relationship and that overfishing was not occurring in any significant way until the Menhaden management Board arbitrarily changed the definition there is no valid way to choose a reduction. Any reduction is purely a guess which i think is contrary to good management.

Ron Lukens (VA) was in support of the 3 year average, and a multiplier of 1, meaning 0% reduction. However, under the notion that there should be some reduction, he wanted to emphasize that it should be no more than 10%. The science does not suggest that we need such a substantial reduction. He added a 0% reduction from the 3 year average is a 6% reduction from harvest in 2011.

Jimmy Kellum (VA) was in support of the 3 year average, and a multiplier of 1, meaning 0% reduction. He added that closing on a percentage of the TAC will mean we will probably end up leaving quota on the table.

Jeff Kaelin (NJ) stated the abundance of fish today should be reflected and therefore use 2012 landings in the average calculations. Overfishing was marginal, and concerns about the history of overfishing are not relevant. He was in support of the 3 year average, and a multiplier of 1, meaning 0% reduction.

Tom Ogle (SC) stated in the face of obvious and substantial overfishing he supports a 0.5 multiplier (meaning a 50% reduction) and reducing mortality to F Target (F30%) in 5 years.

**(Section 4.2.1.3) Issue 5c: TAC Allocation**

Some AP members recommend state by state allocation option C1, with a 5 year revisit provision. They are also strongly against allocation options that are not based on landings history. Allocation that is not based on history is not a conservation effort, so it should not be considered and sets a bad precedent.

Other AP members recommended option A.2.5, a 30% bait and 70% reduction split to allow for expansion of the bait fishery to the northern region, as the population is rebuilt, and that it would be fair to allow for growth. They also felt that the landing data from the bait side of things are incomplete. They also supported a 5 year revisit provision.

Some AP members favored a coastwide quota, along with a set aside option. They also noted that the markets will dictate the breakdown for bait and reduction fisheries, so it is unnecessary to allocate to the bait and reduction fishery.

An AP member favored sub-option A1 do not allocate, but keep it a coastwide TAC. They also think the season should start July 1, and overall the season start should be considered at the ASMFC level through the appropriate process. He also stated that the allocation should be based on history, and he does not support allocations that are not based on history.

Some AP members felt that the bait market is saturated and they do not think the bait industry will expand. They are also concerned that the cuts will put a lot of people out of business.

#### **(Section 4.2.1.4) Issue 5d: Quota Transfers**

Some AP members favor quota transfers, but noted that this is most relevant if quota rollover is not allowed. Other members added that this is important, especially if menhaden show up in New England and the mid-Atlantic boats need to travel to the Gulf of Maine to harvest those fish.

Some AP members did not have a position on this issue.

#### **(Section 4.2.1.5) Issue 5e: Quota Rollover**

Some AP members support option B, to allow 100% rollover because sometimes natural events can devastate the fishery (e.g., Hurricane Sandy).

An AP member favored option A, no rollover because there is conservation in saving fish and that will hopefully help the stock grow faster.

Some AP members favored option C. However, the Board should consider several factors in deciding what percent of the underage can be rolled over. More specifically, if going with a low reduction or no reduction in recent catch, rollover is unwarranted, but if taking more substantial reduction in catch to end overfishing, some level of rollover is appropriate.

#### **(Section 4.2.1.6) Issue 5f: Quota Payback**

Some AP members are in favor of option B, 100% payback, because there needs to be incentive not to exceed the TAC.

One AP member was in favor of option A because the issue that specifies the closure percentage should mean that there will be no overages.

#### **(Section 4.2.1.7) Issue 5g: Bycatch Allowance**

The AP felt that a pound bycatch allowance is more appropriate than a percent bycatch allowance and agreed that there should be a mechanism to discourage directed harvest after the season. However, the pound nets in the mid Atlantic will have trouble because they have passive gears, so the AP is unsure if a specific pound or percent limit will work for them because they will all end up as discards. They suggested that maybe a trip limit would be a better option for them.

The AP recommended that bycatch amounts be quantified in this fishery to understand the efficiency of a bycatch allowance provision.

**(Section 4.2.1.8) Issue 5h: TAC Set Aside for Small Scale Traditional Fishery**

The AP recommended that the TC review the gears within each state and also look at the landings by gear and by month. This information may better inform when, where and to who would be eligible for this set aside. The AP recommends that this issue be considered again in future action after this information is obtained.

Jeff Kaelin (NJ) noted there is a late fall NJ gillnet and pound net fishery that should be considered for a set aside (he also noted there may be similar small scale fisheries in other states). He added the NJ fishery occurs after purse seining has ended coastwide and is valuable to recreational fishermen seeking menhaden as bait for a late fall striped bass run.

**(Section 4.2.1.9) Issue 5i: TAC Set Aside for Episodic Events**

The AP members were in support of an episodic event set aside, but they felt it would be more usable if it was a set aside from an unallocated coast-wide quota. July 1<sup>st</sup> does not work as a rollover date, September 1 or some other date in the Fall would work better.

**(Section 4.2.2) Issue 6: Chesapeake Bay Reduction Fishery Cap**

Some AP members support option C to adjust the cap, not eliminate it. If the intent is to protect menhaden to rebuild it, protecting them in the Chesapeake Bay is critical from an ecological perspective.

Some AP members support option A, and with a new management regime this becomes obsolete and the Board should let it expire. An AP member added the cap was not based on specific biological advice so it should expire in 2012, not wait until 2013. There is no conservation with this measure because Atlantic menhaden move in and out of the Chesapeake Bay freely.

Some AP members favored option B, to adjust it over a longer time frame as they view it has helped protect the bay.

**(Section 4.5.3) Issue 7: De Minimis**

An AP member suggested *de minimis* criteria should not be defined, but if it is defined, the criteria should be less than 0.25% of the total coast-wide bait landings. They also felt that any *de minimis* state should not be allowed to vote.

Some AP members thought that we need the annual reporting, but being exempted from biological sampling at low landings would be OK.

Some AP members felt that even if a state was granted *de minimis* status, that state should collect biological data.

#### **(Section 4.5) Recommendations for Federal Waters**

Some AP members felt this would be a good idea for consistency. They also recommended that the MAFMC be contacted to construct a joint management plan for Atlantic menhaden.

Other AP members felt that this is unnecessary as it is a fishery that is managed where menhaden are landed which is within the states.

#### **Other Comments**

Ron Lukens generally commented that there are several instances that specify Atlantic menhaden are filter feeders and therefore, they improve water quality. This is inconsistent with recent research and suggested it be removed or modified where appropriate.

Ron Lukens suggested on page 30, it states “economic impacts outside of Northumberland county are negligible” is simply incorrect.

Jeff Kaelin agreed with comments regarding water quality and filter feeding.

Historically the AP and Technical Committee (TC) used to meet together. They look forward to another meeting where the TC sits down with the AP to review implementation of Amendment 2. He recommended having a joint meeting before the benchmark stock assessment.

Melissa Dearborn (NY) who was unable to attend the AP meeting was concerned about the lost opportunity from the public hearings that were cancelled.

AP members expressed concern about a record of poor attendance by some panel members in recent years and asked that the Board/Commissioners review membership to ensure that it is active and representative of stakeholder interests.

The AP congratulates Bob Beal as new executive director of ASMFC.



# Atlantic States Marine Fisheries Commission

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## MEMORANDUM

December 3, 2012

**To:** Atlantic Menhaden Management Board  
**From:** ASMFC Law Enforcement Committee  
**Subject:** Draft Amendment 2

At the fall 2012 meeting of the Law Enforcement Committee (LEC), members reviewed and discussed management options contained in Draft Amendment 2 for Atlantic menhaden. Several key components of the amendment were discussed relative to their enforcement implications. Following is a brief summary of the discussion and the recommendations of the LEC.

### Harvest Reporting in the Bait Fishery

Members of the LEC noted that the primary management measure under consideration is establishment of a quota (Total Allowable Catch). While this may be the most expeditious tool available given the nature of the fishery, management and enforcement of a quota is difficult given the problems with current harvest reporting in the bait fishery. This fishery is subject to varying levels of state reporting requirements. Some harvest by gear is not subject to reporting. An unknown but possibly significant amount of harvested fish are being sold or transferred from vessel to vessel (or fisherman to fisherman) and are likely not being reported. A significant amount of menhaden harvested for bait are likely not being reported in some states or areas.

### Recommendations:

- 1) **Require all menhaden harvested for sale as bait to be reported through licensed dealers.**
- 2) **States should implement tough standards for license suspension when there is a failure to report landings.**
- 3) **Establish a process whereby commercial fishermen are required to declare intent to harvest menhaden for sale as bait prior to a trip.**
- 4) **Ensure that a standardized and timely reporting system is applied to all gears and vessels harvesting menhaden for sale as bait.**

### Total Allowable Catch

LEC members did not comment specifically on this provision, except to question whether any other management strategies were considered. Quotas (TACs) are considered a difficult enforcement strategy relative to use of permits, closed seasons or closed areas (*ASMFC Law Enforcement Committee. 2009. Guidelines for Resource Managers on the Enforceability of Fishery Management Measures.*) **Members assert there is likely significant under-reporting of landings in the bait fishery.**



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## MEMORANDUM

LEC comments on Amendment 2  
December 3, 2012  
Page Two

### **Bycatch Allowance**

Members recognize the intent of a bycatch allowance to minimize waste. However the LEC prefers that no bycatch allowance be implemented for menhaden, as this may encourage targeting of menhaden as legal bycatch during closed periods and may also be used to mask illegal harvest of fish during closed periods.

#### **Recommendation:**

- 1) Do not establish a bycatch allowance. But,**
- 2) If a bycatch allowance is implemented, the LEC strongly endorses the use of a poundage based allowance rather than a percentage based allowance.**

### **TAC Set Aside for Small Scale Fisheries**

The LEC is uncertain how to address this without having a clear definition of what constitutes a “traditional small scale fishery”.

#### **Recommendations:**

- 1) A definition needs to be very clear and generally applicable across jurisdictions.**
- 2) Harvest for oneself and not for any sale should be the standard of personal use.**
- 3) States may have certain licenses or regulations allowing small scale harvest that would need to be considered. For example, Connecticut has a non-commercial gill net license. New Jersey allows a non-commercial castnet fishery for menhaden. A definition needs to make sense when applied among all the states.**

The LEC greatly appreciated the opportunity to discuss this Amendment with ASMFC staff and to provide input to the Atlantic Menhaden Management Board.