



Atlantic States Marine Fisheries Commission

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MEMORANDUM

August 1, 2013

To: American Eel Management Board
From: American Eel Draft Addendum III Working Group
Re: Recommendations on American Eel Management Options

The American Eel Addendum III Working Group (WG) met multiple times in June and July to discuss potential recommendations on moving forward with the finalization of Addendum III to the American Eel FMP. The WG is comprised of the following: Terry Stockwell (ME), Dan McKiernan (MA), Russ Allen (NJ), Mitch Feigenbaum (PA), John Clark (DE), Tom O'Connell (MD), Louis Daniel (NC), Ross Self (SC), Steve Minkinen (USFWS), Brad Chase (MA – TC Chair), Sheila Eyster (USFWS – TC Vice-Chair), Martie Bouw (NC – AP Chair), and Mari-Beth DeLucia (NY, AP Vice-Chair).

Based on the recommendations of the American Eel Benchmark Stock Assessment, the goal of the Draft Addendum is to reduce mortality on all life stages. As such, the WG unanimously does not support Option 1 (Status Quo) for both Sections 4.1 (Commercial Fishery Management Options) and 4.2 (Recreational Fishery Management Options). The WG discussed the remaining management options, including potential new management options for consideration, and recommendations for further action.

Monitoring and Habitat Recommendations

The WG supports the monitoring requirements and habitat recommendations contained in Draft Addendum III.

Commercial Glass Eel Fishery Management Measures (Section 4.1.1)

Closure (Option 2)

The WG does not support this option as the stock assessment found no stock recruitment relationship and recognizes the economic importance of the fishery in those states that currently allow harvest.

Quota (Option 3)

The WG does not support any of the quota options that were included in the draft Addendum. The WG discussed the option of a quota based on more recent landings as well as the transfer of quota from the yellow eel fishery to the glass eel fishery. The WG was interested in some modifications to the options originally contained in the Public Comment document. See “Potential Draft Addendum IV Management Measures” below.

Increased Reporting (Option 4)

The WG supports increased commercial fishery monitoring if a quota based management program was implemented. The WG supports monthly reporting following ACCSP standards.

Pigmented Eel Tolerance (Option 5)

The WG supports the pigmented eel tolerance and any restrictions/prohibitions on harvest on this life stage. This would be applied to any state that has a glass eel fishery, current or future. This could be accomplished through the use of a 1/8 inch non-stretchable mesh. The Advisory Panel (AP) would also recommend a 1% tolerance by count to this requirement.

Commercial Yellow Eel Fishery Management Measures (Section 4.1.2)

Increase Minimum Size (Option 2)

The WG discussed increasing the minimum size and supports a minimum size limit of 9 inches. The WG supports the recommendation of the Law Enforcement Committee (LEC) that it would be difficult to enforce minimum size regulations without the use of complementary gear restrictions. Therefore the WG recommends the use of a minimum size restriction in conjunction with gear restrictions (see option 3).

Gear Restrictions (Option 3)

The WG discussed the proposed gear restrictions, including an option for ½ by ½ inch mesh requirements or escape panel. Currently several states have at least ½ by ½ inch mesh requirements in place, with the exception of NH (no mesh minimum), MA (no mesh minimum), RI (no mesh minimum), CT (no mesh minimum), DE (no minimum size) and NJ (3/16 inch). Based on Geer’s Theoretical Mesh Retention Size (2003), a ½ by ½ inch mesh requirement would cull eels less than 8.75 inches and impact states as follows:

Size Limit	NJ	DE	MD	NC	FL
8"		0%	0%	0%	
9"	0%	2%	1%	0%	
10"	1%	9%	3%	1%	
11"	3%	24%	14%	7%	0%
12"	6%	44%	34%	36%	0%

Table 1. Percent of the fishery (by number) for New Jersey, Delaware, Maryland, and Florida that would be illegal under the proposed increases in minimum size.

The WG recommends the consideration of implementing a ½ by ½ mesh requirement through the use of an escape panel for a specified time frame (e.g. 3 years), after which time the gear must be phased out to meet the mesh requirements. This option was also supported by the AP. States or jurisdictions that are more conservative are recommended to maintain their gear mesh restrictions. If a ½ by ½ mesh restriction is implemented with a 9 inch minimum size limit the Board may have to consider a tolerance for undersized eels. The Board should also consider point of enforcement (e.g. at harvest or through the dealer). While this option was not included in the Draft Addendum for Public Comment, a ½ by ½ mesh restriction falls within the range of options that were included in the public comment document (Status Quo, ¾ x ½ inch, and 1 x ½).

Coastwide Quota (Option 4)

The WG was supportive of quota management for the fishery based on recent landings. This aligns with the recommendations of the Stock Assessment Subcommittee (SAS) as it was considered the most effective way to ensure that mortality was reduced on yellow eels. However, the WG was not supportive of the base years presented in the Public Comment document or the

method for allocating quota to the states. The WG was interested in some modifications to the options originally contained in the Public Comment document. See “Potential Draft Addendum IV Management Measures” below.

Increased Reporting (Option 5)

Consistent with the WG recommendations for the glass eel fishery, the WG supports increased commercial fishery monitoring if a quota based management program was implemented. The WG supported monthly reporting following ACCSP standards.

Two Week Fall Closure (Option 6) - The WG does not support this option.

Silver Eel Fishery Management Measures Section (4.1.3)

The WG unanimously supported Option 2 with some modification. The WG noted the cultural value and economic support to the community provided by the silver eel fishery along the Delaware River (NY). However, the goal of Draft Addendum III is to reduce mortality on all life stages and increasing survival of silver eels provides the greatest chance for increasing spawning success.

The WG recommends prohibiting the harvest of American eels from gears other than pots, traps, and spears from September 1 to December 31, with the exception of New York commercially licensed weir fishermen in the Delaware River and tributaries from September 1 – December 31. The State of New York must reduce active effort (i.e. not including latent effort removal) by an amount specified by the Board. An effort reduction plan must be submitted to the Technical Committee (TC) for review and approved by the Board no later than a date specified by the Board. The overall goal would be to have the fishery phased out within ten years, or some other time frame specified by the Board. Additionally, the Board may want to consider silver eel monitoring requirements, similar to the requirements for the potential allowance of glass eel fisheries (see “Potential Draft Addendum IV Management Measures” below).

Recreational Management Measures (Section 4.2)

The WG unanimously supported Option 2 (25 fish per day bag limit) and Option 3 (party/charter boat exemption). The WG was supportive of having the same minimum size for both commercial and recreational fisheries.

Draft Addendum III Final Recommendation

The WG recommends the finalization of Addendum III as recommended above to allow for the potential implementation of management measures prior to the start of the 2014 fishing season, as well as the immediate imitation of Draft Addendum IV (see “Potential Draft Addendum IV Management Measures” below).

Potential Draft Addendum IV Management Measures

The WG recommends the initiation of Draft Addendum IV, which would include measures from Draft Addendum III that have been further refined based on public and Board input as well as new measures developed by the Working Group and SAS. The goal of Draft Addendum IV would be to reduce overall mortality on American eels. This document could be made available for the Board’s review in October with final approval at the February 2014 meeting. Draft Addendum IV may include, but may not be limited to, the following measures:

Commercial Glass Eel Fisheries Measures

Recommended Option 1 – Glass Eel Fisheries (New) and Quota Management

The WG discussed the possibility of allowing the development of glass eel fisheries in states where harvest is currently prohibited. The WG recognizes that the SAS emphatically does not support the development of additional glass eel fisheries due to uncertainty in the stock recruitment relationship and natural mortality estimates, as well as the concern that poaching could have on the health of the stock. However, the WG discussed that, if two states are allowed to continue to operate a glass eel fishery, the remainder of the ASMFC states or jurisdictions should be given the opportunity for a glass eel fishery, provided certain restrictions and requirements are met. Inherent in this is that there will be a reduction in overall mortality on American eels even if there is an increase in the number of states participating in the glass eel fishery. Additionally, the associated survey requirements may provide much needed data on the stock for use in future assessments.

For states/jurisdictions that would like the option of to develop a conservative glass eel fishery within their waters:

1. In order to meet the goal of reducing mortality, states/jurisdictions could allow a glass eel fishery provided the state or jurisdiction implemented a reduction in mortality in its yellow eel fishery. For example, the state or jurisdiction could transfer yellow eel landings into a glass eel quota, potentially based on the conservative methodology currently being developed by the SAS. Other methodologies could be considered with TC review and Board approval. Regardless of the methodology, this option would require that 1) the yellow eel fishery to be managed through a quota system and 2) the state or jurisdiction that opened a glass eel fishery would have its yellow eel quota reduced by the required amount (based on the transfer methodology).
2. For states that have had limited yellow eel harvest or reduced landings over time as a result of declining effort and demand, those state would be allowed to consider a limited glass eel fishery with landings not to exceed an amount specified by the Board (e.g. the average glass eel landings from South Carolina from 1998 – 2012 (194 pounds)). These states would be required to reduce mortality or increase survival on other life stages.
3. The state or jurisdiction considering opening of a glass eel fishery must complete a full life cycle survey of American eels in one watershed for at least three years (regardless of the continuation of the fishery or landings). This survey would include but not be limited to collecting the following information: age of entry into the fishery, mortality of glass and yellow eels, age structure, and average length and weight of eels in the fishery. The survey would need to be implemented prior to or during the start of the first open glass eel fishing season. The survey design is subject to TC review and Board approval.
4. Allocation could be re-visited after three years, or at another time frame as specified by the Board, to potentially incorporate the data collected by the state or jurisdiction in the life cycle survey, as well as any other new information.
5. The state/jurisdiction must have adequate penalties in place to discourage poaching.
6. The state/jurisdiction must have adequate enforcement resources to monitor poaching and consider reciprocity in instances of violations. It is recommended that states work with neighboring jurisdictions to increase the effectiveness of law enforcement resources.
7. The state/jurisdictions must implement the pigmented eel restrictions.
8. The state/jurisdiction must have timely commercial monitoring in place to ensure quota is not exceeded.

9. The state/jurisdiction must have the ability to close the glass eel fishery when landings reach a specified threshold (e.g. 95% of the quota) to be determined by the Board.
10. At the Board request, any or all parts of the implementation program is subject to TC, LEC, and/or AP review.

Recommended Option 2 – Glass Eel Quota (Current Fisheries)

For states that currently have a glass eel fishery:

1. The quota allocation could be based on the average landings from the following periods (see Table 2):
 - a. 1998 – 2012: This time period includes a longer time series of landings as well as the most recent years.
 - b. 1998 – 2010: This time period includes a longer time series of landings but is limited to only the years that the stock assessment data runs through.
 - c. 2010 – 2012: This time period is reflective of the most recent landings.
 - d. 2007 – 2012: This time period is reflective of recent landings, but also includes some years that the stock assessment data runs through.
 - e. A percent reduction from one of the above amounts.
 - f. Another amount specified by the Board.
2. The state/jurisdiction with a glass eel fishery must complete a full life cycle survey of American eels in one watershed for at least three years (regardless of the continuation of the fishery or landings), which would include but not be limited to collecting the following information: age of entry into the fishery, mortality of glass and yellow eels, age structure, and average length and weight of eels in the fishery. The survey would need to be implemented prior to or during the start of the first open glass eel fishing season. The survey design is subject to TC review and Board approval.
3. Allocation could be re-visited after three years, or at another time frame as specified by the Board, to potentially incorporate the data collected by the state or jurisdiction in the life cycle survey, as well as any other new information.
4. The state/jurisdiction must have adequate penalties in place to discourage poaching.
5. The state/jurisdiction must have adequate enforcement resources to monitor poaching and consider reciprocity in instances of violations. It is recommended that states work with neighboring jurisdictions to increase the effectiveness of law enforcement resources.
6. The state/jurisdiction must implement the pigmented eel restrictions.
7. The state/jurisdiction must have timely commercial monitoring in place to ensure quota is not exceeded.
8. The state/jurisdiction must have the ability to close the glass eel fishery when landings reach a specified threshold (e.g. 95% of the quota) to be determined by the Board.
9. At the Board request, any or all parts of the implementation program is subject to TC, LEC, and/or AP review.

Base Years	Allocation (in pounds)	
	Maine	South Carolina
1998 - 2012	6,483	194
1998 - 2010	5,223	70
2010 - 2012	10,832	745
2007-2012	8,036	373

Table 2. Potential allocation of quota to Maine and South Carolina based on Options A-D above.

Yellow Eel Fisheries

The WG recommends the development of Draft Addendum IV, for the reasons specified above, which would include, but may not be limited to, the following measures:

Recommended Option 1- Quota

The WG was supportive of quota management, but recommended the use of a new approach in determining allocation and in setting the total quota. The SAS is currently working on developing a method to evaluate the proposed quotas as it relates to future stock health.

Specifically, the WG recommends that:

1. Allocation be based on the average of the three highest landing values from 2002-2012 (see Table 3 for percent allocation values).
2. The total coastwide quota would be based on the average landings from the following periods (see Table 3 for quota options):
 - a. 1998 – 2012: This time period includes a longer time series of landings as well as the most recent years.
 - b. 1998 – 2010: This time period includes a longer time series of landings but is limited to only the years that the stock assessment data runs through.
 - c. 2010 – 2012: This time period is reflective of the most recent landings.
 - d. 2007 – 2012: This time period is reflective of recent landings, but also includes some years that the stock assessment data runs through.
 - e. A percent reduction from one of the above amounts.
 - f. Another amount specified by the Board.

State	Percent Allocation	Quota (in pounds) based on landings from the following years:			
		1998 - 2012	1998 - 2010	2010 - 2012	2007-2012
Maine	2.2%	19,413	18,606	22,476	19,636
New Hampshire	0.0%	2,000	2,000	2,000	2,000
Massachusetts	0.4%	3,666	3,514	4,244	3,708
Rhode Island	0.4%	3,493	3,348	4,044	3,533
Connecticut	0.3%	3,138	3,007	3,633	3,174
New York	1.3%	11,908	11,413	13,787	12,045
New Jersey	12.4%	112,065	107,407	129,746	113,353
Delaware	11.3%	101,831	97,598	117,897	103,001
Maryland	39.4%	355,089	340,329	411,113	359,170
PRFC	9.7%	87,534	83,895	101,344	88,540
Virginia	9.9%	88,837	85,144	102,853	89,858
North Carolina	11.2%	100,570	96,389	116,437	101,725
South Carolina	0.0%	2,000	2,000	2,000	2,000
Georgia	0.0%	2,000	2,000	2,000	2,000
Florida	1.4%	12,484	11,965	14,453	12,627
Total	100%	900,229	862,808	1,042,262	910,574

Table 3. The potential quota allocations based on the percentage method and applied to options A-D. (Note: The sum of the state allocations would be ~6,000 higher than the total given as a result of the 2,000 pound allowance for New Hampshire, South Carolina, and Georgia.)

3. Quota allocation could be re-visited at a time as specified by the Board.
4. The WG recommends a minimum of 2,000 pounds be given to those states/jurisdictions that fall below this value to reduce the administrative burden on the state/jurisdictions. This quota allocation cannot be used for glass eel conversion.
5. If a state/jurisdiction exceeded its allocation, and the total coastwide quota was also exceeded, the state/jurisdiction could be required to implement management changes (e.g. harvest control measures) in the following year to reduce harvest. At the request of the Board, the proposed management changes could require TC, AP, and/or LEC review.
6. If the total coastwide quota was exceeded then those states or jurisdictions that exceeded their allocation would be required to pay back quota the following year in one of the following ways:
 - a. A state/jurisdictions quota would be deducted equal to the amount of the overage that occurred in the state or jurisdiction the following year
 - b. Those states/jurisdictions that exceeded the quota would have their quota deducted in the following year in proportion to the quota overage (i.e. similar to black sea bass). An example that includes just the New England states for simplification purposes is shown in Table 4.
 - c. Another method as specified by the Board.
7. If during the fishing year a state/ jurisdiction exceeded its allocation, that state would be required to implement measures to close its yellow eel fishery for the remainder of the year when landings reach a specified threshold (e.g. 95% of the quota) to be determined by the Board.
8. If a state/jurisdiction chooses to allow glass eel harvest, the state or jurisdiction would have its yellow eel quota reduced by the required amount (based on the transfer methodology).
9. Implementation of the quota system within a state/jurisdictions waters would be determined by the state/jurisdiction.
10. Quota allocation could be revisited after a time specified by the Board.

	2013 Allocation	2013 Landings	Overage Amount	% Contribution to Total Overage	Deduction to 2014 Quota	2014 Quota
ME	100	120	-20	20%	8	92
NH	100	80	-	-	-	100
MA	100	60	-	-	-	100
RI	100	150	-50	50%	20	80
CT	100	130	-30	30%	12	88
Total	500	540	-40	100%	40	460

Table 4. Example of payback method.

Recommended Option 2 – Limited Entry

The WG discussed the implementation of limited entry in the yellow eel fishery but thought it would not be necessary if quota management was implemented. However, it could be an option for the public and Board to consider if a new public comment document was released.

Under this option states would be required to reduce latency and limit entry into the fishery. In total there were 937 permits issued specific to American eel harvest along the coast in 2012, not including the general commercial fishing licenses issued for RI, NY, MD, and NC (see below). For all member states with a fishery, there were approximated 300 fishermen who reported landing eels in 2012. Latent effort was highest in Massachusetts.

- Rhode Island – New Commercial Fishing Licenses are regulated but not restricted specific to American eel harvest. Anyone with a CFL can receive a non-restricted finish endorsement to harvest eels.
- New York – Commercial food fish license required. There is no specific license for American eel.
- Maryland – Limited entry for commercial fishing licenses. There is no specific license for American eel. Anyone issued a Commercial Finfish or Unlimited Tidal Finfish License can harvest eels.
- North Carolina – Creation of an eel specific license would require action by NC legislature. Limited entry must be “federally” managed (council or ASMFC) managed and have an allocated quota.

State	# Permits or Licenses Issued	# Active	Latency
ME	~ 30 coastal pot and ~10 inland pot		
NH	33	7	21%
MA	121	15	12%
RI	1,941 Commercial Fishing Licenses	3	x
CT	4		
NY	Food fish license only	10	x
PA	No commercial fishery		
NJ	148	33	22%
DE	65	15	23%
MD	239 Commercial Finfish Harvester Licenses and 2088 Unlimited Tidal Fish Licenses	82	x
DC	No commercial fishery	-	-
PRFC	49	20	41%
VA	427 permits (256 permits <100 pots; 136 permits between 100-300 pots; 35 permits 300+ pots)		
NC	General Standard Commercial Fishing License (SCFL) or a Retired SCFL	31	x
SC	0 permits	-	-
GA	0 permits	-	-
FL	29 permits		

Table 5. American eel license and activity by state