



*Working towards healthy, self-sustaining populations
for all Atlantic coast fish species or successful
restoration well in progress by 2015*

Draft Addendum III

American Eel Management Board
August, 2013





Current Management

- **Fishery Management Plan adopted in 1999**
- **Recreational Fisheries Management**
 - 50 fish per day bag limit
 - 6 inch size limit





Current Management

- **Commercial Fisheries Management**
 - State must maintain as conservative or more conservative measures
 - Current glass eel fisheries allowed in ME & SC
 - Significant Yellow Eel fisheries occur in NJ, DE, MD, PRFC, VA, and NC
 - All states except PA and DC





Stock Assessments

- 2012 Benchmark Stock Assessment
 - Approved by peer review panel and accepted for management use
 - Data poor stock
 - No overfishing/overfished definition possible
 - **Stock Status = Depleted**
 - Habitat loss, passage mortality, disease, potentially shifting oceanographic conditions.





Draft Addendum III

- Initiated in response to the Stock Assessment
- Includes:
 1. Habitat Recommendations
 2. Monitoring Requirements
 3. Commercial Management Measures
 4. Recreational Management Measures





Draft Addendum III

- **Goal is to reduce mortality on ALL life stages**
- **Coastwide Regulations**
- **Options may be implemented in combination**





Habitat Recommendations

- Focus efforts on **increasing understanding of habitat requirements**
- Engage the relevant regulatory agencies to **increase or improve upstream /downstream eel passage**
- Encouraging **habitat restoration**





Monitoring Program

- **Fisheries Independent Surveys**
 - YOY, Yellow, and Silver Eels (Table 1)
 - Multiple Life Stage Recommended
- **Fisheries Dependent Surveys**
 - Mandatory monthly reporting of catch/effort
 - Increase data on eels harvested for personal use
 - Marine Agencies should work with Inland counterparts to standardize reporting





Draft Commercial Management Options

- Glass Eel Fisheries
- Yellow Eel Fisheries
- Silver Eel Fisheries





Draft Glass Eel Commercial Management Options

- **Glass Eel Fisheries Measures (ME and SC only)**
 - **Option 1: Status Quo**
 - **Option 2: Closure**
 - Immediate
 - Delayed (5 years or other timeframe specified)





Draft Glass Eel Commercial Management Options

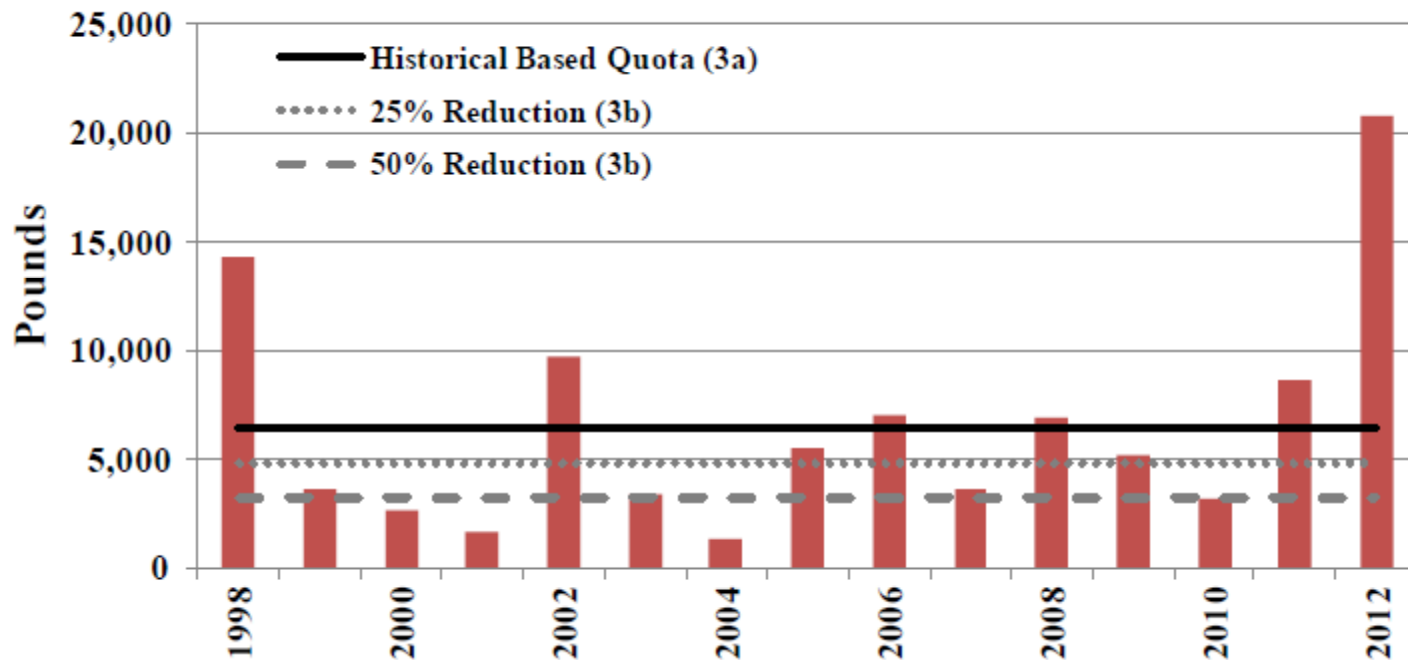
- **Glass Eel Fisheries Measures (ME and SC only)**
 - **Option 3: Quota**
 - Historical Average (1998 – 2012)
 - Harvest Reductions (25% and 50%)





Draft Glass Eel Commercial Management Options

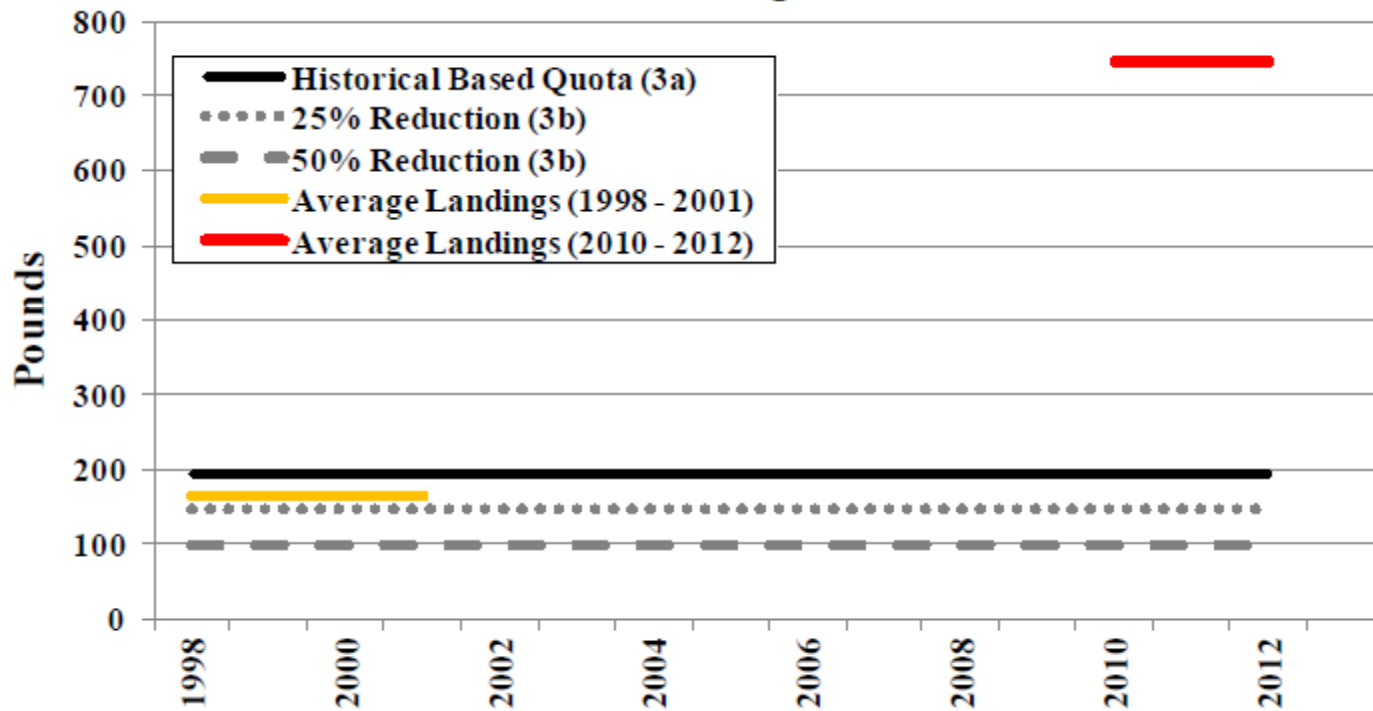
	Allocation	Difference*	Estimated Value		
			\$100/pound	\$1000/pound	\$2500/pound
Sub-Option 3a - Quota	6,373	-38%	\$637,300	\$6,373,000	\$15,932,500
Sub-Option 3b - 25%	4,780	-53%	\$477,975	\$4,779,750	\$11,949,375
Sub-Option 3b - 50%	3,187	-69%	\$318,650	\$3,186,500	\$7,966,250





Draft Glass Eel Commercial Management Options

	Allocation	Difference*	Est. Value		
			\$100/pound	\$1000/pound	\$2500/pound
Sub-Option 3a - Quota	194	-	\$19,400	\$194,000	\$485,000
Sub-Option 3b - 25%	145.5	-	\$14,550	\$145,500	\$363,750
Sub-Option 3b - 50%	97	-	\$9,700	\$97,000	\$242,500





Draft Glass Eel Commercial Management Options

- **Glass Eel Fisheries Measures (ME and SC only)**
 - **Option 4: Dealer/Harvest Restrictions**
 - trip level ticket system for harvesters and dealers in order to ensure accurate reporting of glass eel harvest.
 - **Option 5: Pigmented Eel Tolerance**
 - Increase in pigmented eel harvest represents development of a new fishery
 - Only a small tolerance (max 25 pigmented eels per pound of glass eel catch) would be allowed.
 - States would have the option to propose restrictions (e.g. mesh size requirements) to meet this requirement





Draft Yellow Eel Commercial Management Options

- **Yellow Eel Fisheries Measures**
 - **Option 1: Status Quo**
 - **Option 2: Increase Minimum Size (8-12”)**

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

Minimum Size (inches)	% Change Eggs Per Recruit
8	0
9	0.0113
10	0.0113
11	0.262
12	0.262





Draft Yellow Eel Commercial Management Options

- **Yellow Eel Fisheries Measures**

- **Option 3: Gear Restrictions**

- Status Quo
 - $\frac{3}{4}$ by $\frac{1}{2}$ inch minimum mesh size or escape panel
 - 1 by $\frac{1}{2}$ inch minimum mesh size or escape panel

Inches	% of catch no escape panel	% of catch with escape panel	Reduction in eels harvested at the given sizes
Less than 8	-	0.03%	
Less than 9	0.16%	0.11%	31%
Less than 10	1.25%	0.71%	43%
Less than 11	13%	7%	45%
Less than 12	58%	36%	37%
12 to 31	42%	64%	-



Draft Yellow Eel Commercial Management Options

- **Yellow Eel Fisheries Measures**
 - **Option 4: Coastwide Quota**
 - Historical Averages (a few options for base years)
 - Harvest Restrictions (20%, 30%, 40%, or 50%)





Base Years 1980 - 2011

	Sub-Option 3a and 3d Proposed Quota Allocations					Recent Harvest (Average 2009-2011)
	3a	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	28,519	22,816	19,964	17,112	14,260	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	10,257	8,206	7,180	6,154	5,129	621
Rhode Island	6,485	5,188	4,539	3,891	3,242	3,673
Connecticut	9,790	7,832	6,853	5,874	4,895	221
New York	57,034	45,627	39,924	34,220	28,517	15,761
New Jersey	169,512	135,610	118,659	101,707	84,756	119,447
Delaware	130,274	104,219	91,192	78,164	65,137	72,972
Maryland	282,622	226,098	197,835	169,573	141,311	484,138
PRFC	208,982	167,186	146,287	125,389	104,491	48,543
Virginia	365,664	292,531	255,965	219,398	182,832	92,945
North Carolina	178,643	142,914	125,050	107,186	89,322	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	8,743	6,994	6,120	5,246	4,372	103
Florida	21,010	16,808	14,707	12,606	10,505	14,571
Total	1,481,529	1,186,023	1,038,270	890,517	742,765	48,543





Base Years 1990 - 2011

	Sub-Option 3b and 3d Proposed Quota Allocations					Recent Harvest (Average landings from 2009-2011)
	3b	3d - 20% reduction*	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	24,576	19,660	17,203	14,745	12,288	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	6,632	5,306	4,642	3,979	3,316	621
Rhode Island	8,569	6,855	5,999	5,142	4,285	3,673
Connecticut	5,942	4,753	4,159	3,565	2,971	221
New York	12,527	10,021	8,769	7,516	6,263	15,761
New Jersey	133,591	106,873	93,514	80,154	66,795	119,447
Delaware	132,100	105,680	92,470	79,260	66,050	72,972
Maryland	314,432	251,546	220,102	188,659	157,216	484,138
PRFC	155,912	124,729	109,138	93,547	77,956	48,543
Virginia	221,539	177,231	155,077	132,923	110,770	92,945
North Carolina	83,357	66,686	58,350	50,014	41,679	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	2,000	2,000	2,000	2,000	2,000	103
Florida	13,756	11,005	9,630	8,254	6,878	14,571
Total	1,117,734	894,987	783,614	672,240	560,867	48,543





Base Years 2002 - 2011

	Sub-Option 3c and 3d Proposed Quota Allocations					Recent Harvest (Average 2009-2011)
	3c	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	
Maine	14,358	11,486	10,051	8,615	7,179	6,755
New Hampshire	2,000	2,000	2,000	2,000	2,000	99
Massachusetts	3,073	2,458	2,151	2,000	2,000	621
Rhode Island	2,360	2,000	2,000	2,000	2,000	3,673
Connecticut	2,000	2,000	2,000	2,000	2,000	221
New York	7,001	5,601	4,901	4,201	3,501	15,761
New Jersey	125,607	100,485	87,925	75,364	62,803	119,447
Delaware	104,854	83,883	73,398	62,912	52,427	72,972
Maryland	335,105	268,084	234,574	201,063	167,553	484,138
PRFC	87,010	69,608	60,907	52,206	43,505	48,543
Virginia	87,627	70,102	61,339	52,576	43,814	92,945
North Carolina	74,969	59,975	52,479	44,982	37,485	82,270
South Carolina	2,000	2,000	2,000	2,000	2,000	18
Georgia	2,000	2,000	2,000	2,000	2,000	103
Florida	9,528	7,622	6,670	5,717	4,764	14,571
Total	859,309	688,647	603,316	517,985	432,654	48,543





Draft Yellow Eel Commercial Management Options

- **Option 5: Reporting Requirements**
 - trip level ticket system for dealer and harvester reporting





Draft Yellow Eel Commercial Management Options

- **Option 6: Two Week Fall Closure**
 - required to close directed yellow eel **pot/trap fishery** for **2 consecutive** weeks Sept 1st and Oct 31st
 - **State may specify** when the closure occurs, must occur after est. start of state's silver eel migration.
 - All eel pots/traps must be removed from the water
 - A limited fall closure will result in a reduction in yellow eel landings as most American eels are landed in the fall





Table 11 page 25

	September	October	November	Average Harvest from 2009 – 2011 for All Gears
Maine	5%	0%	0%	6,755
New Hampshire	10%	0%	0%	99
Massachusetts	4%	3%	0%	621
Rhode Island	19%	21%	2%	3,573
Connecticut	24%	17%	0%	221
New York	10%	17%	3%	15,761
New Jersey	23%	27%	6%	119,447
Delaware	21%	30%	8%	72,972
Maryland	9%	19%	8%	484,138
Virginia	21%	30%	12%	92,945
North Carolina	13%	38%	24%	82,270
South Carolina	0%	0%	0%	18
Georgia	0%	0%	0%	103
Florida	0%	0%	11%	14,571
Total				893,491



Draft Commercial Management Options

- **Silver Eel Fisheries Measures**
 - **Option 1: Status Quo**
 - **Option 2: Gear Restrictions**
 - No take of eels during the fall from any gear type other than baited traps/pots
 - Rec: Sept 1 – Dec 31





Table 12, page 26

State	Sep	Oct	Nov	Dec
ME				
NH				
MA				
RI				
CT				
NY				
NJ				
PA	UNKNOWN			
DE				
MD				
DC				
PRFC				
VA				
NC	UNKNOWN			
SC	UNKNOWN			
GA	UNKNOWN			
FL	UNKNOWN			



Table 13 page 27

	September	October	November	December	Average Harvest from 2009 – 2011 for All Gears
Maine	0.00%	0.00%	0.00%	0.00%	6,755
New Hampshire	0.00%	0.00%	0.00%	0.00%	99
Massachusetts	0.00%	0.00%	7.73%	0.00%	621
Rhode Island	0.00%	0.07%	14.47%	0.00%	3,573
Connecticut	0.00%	0.00%	0.00%	0.00%	221
New York	1.33%	0.83%	3.66%	0.17%	15,761
New Jersey	0.12%	0.65%	0.27%	0.05%	119,447
Delaware	0.00%	0.00%	0.00%	0.00%	72,972
Maryland	0.00%	0.01%	0.17%	0.00%	484,138
Virginia	0.07%	0.28%	0.10%	0.16%	92,945
North Carolina	0.00%	0.02%	0.00%	0.00%	82,270
South Carolina	0.00%	0.00%	0.00%	0.00%	18
Georgia	0.00%	0.00%	0.00%	0.00%	103
Florida	0.00%	0.00%	0.00%	0.00%	14,571
Total					893,491



Draft Recreational Management Options

- **Option 1:** Status Quo
- **Option 2:** Reduce recreational bag limits
 - 25 fish per day bag limit
- **Option 3:** Party/Charter Boat Exemption
 - If Option 2 is chosen, the Board may consider
 - Maintains current 50 fish/day limit

