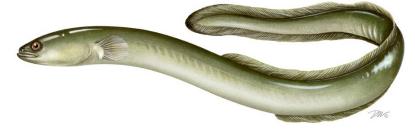




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# FMP Review for American Eel 2012





#### **Status of Stock**

- Stock assessment initiated in 2009
- 100 surveys reviewed by SAS with 19 YOY and 15 yellow eel accepted for use as indices of abundance → Data poor species
- Trend analyses and model results indicate that the stock has declined in recent decades and the prevalence of significant downward trends in multiple surveys is cause for concern.
- Stock status = Depleted



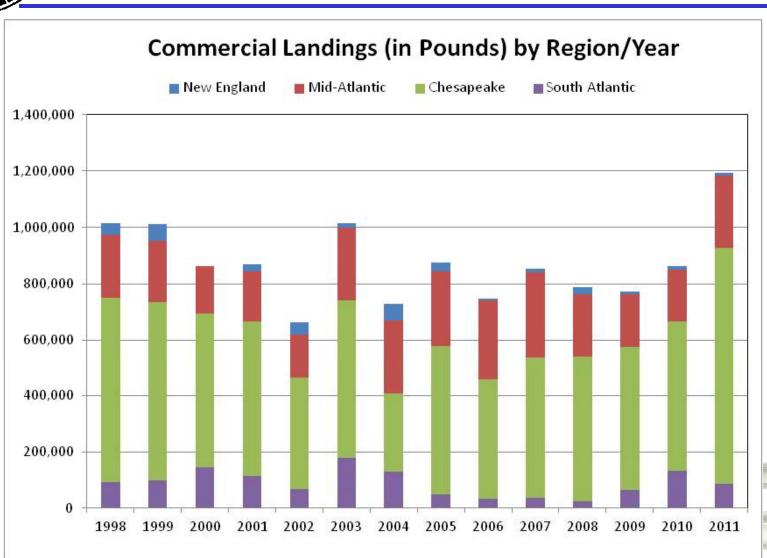


#### **Status of Fishery**





#### **Status of Fishery**





#### **Commercial Fishery**

- Yellow/silver eels = 1,131,575 pounds
  - 30% increase in landings from 2010
- Landings of glass eels were reported from Maine and South Carolina and totaled 9,128 pounds in 2011
  - Landings of glass eels have fluctuated from over
     14,000 pounds in 1998 to a low of 1,282 pounds in 2004.





#### **Monitoring**

- The FMP requires annual YOY survey
- 2011 Survey Results
  - Below Average: ME, NH, NY, DE, SC, GA.
    - Nets were poached on six separate nights in Maine
  - Average: MA, FL
  - Above Average: RI, CT, MD and VA.
    - RI YOY survey was highest on record



#### **2012 and 2013 YOY Data**

	2011	2012	2013
ME			
NH			
MA			
RI			
СТ			
NY			
NJ			
DE			
MD			
PRFC			
VA			
NC			
SC			
GA			
FL			

#### 2012

Below Average – RI, FL Average - MA, GA Above Average - ME, MD, NJ, DE, PRFC

#### 2013

Below Average – MA, NJ, GA Average – ME, MD, FL Above Average – NH, RI, DE





#### **Program Changes**

- Monitoring programs changes (2011)
  - New Jersey: Due to a collapsing overpass, the YOY survey site was not accessible.
  - North Carolina: NCDMF relies on the NOAA
     Beaufort Lab bridge net index to meet survey
     requirement. 2011 results are unavailable due to a backlog of processing the samples.
- Regulatory program changes (2012)
  - Maine: Closed season changed from noon Friday noon Sunday to noon Tuesday noon Wednesday and noon Saturday noon Sunday.



#### Compliance

- The PRT finds that all states are currently implementing the required provisions of the FMP
  - Possible exception that ME did not submit a proposal in advance of implementing a regulatory change as specified under Section 4.4.1 of the FMP to ensure the proposed measures are as conservative or more conservative.
- The PRT cannot comment on if this change is conservational equivalent.
- The PDT requested any changes be reviewed by the TC and AP prior to Board approval.



#### De Minimis

- *De minimis* = For the preceding 2 years, their average commercial landings (by weight) of that life stage constitute > 1% of the coastwide commercial landings
- Requested de minimis: MA, PA, SC, GA, FL and DC
- Based on landings, ME, NH, MA, RI, CT, SC, GA, and DC qualify for *de minimis*
- Based on landings FL does not qualify for de minimis.
  - Average commercial landings were 3.2% of the total coastwide commercial landings.
  - The state currently implements all the requirements of the FMP despite being granted *de minimis* in previous year.



#### **PRT Recommendations**

- The PRT recommends *de minimis* be granted to MA, PA, SC, GA, and DC
- The PRT requests that state personnel highlight notable trends in annual reports and describe any circumstances that prevented sampling from occurring
- States are strongly encouraged to collect biological data from landings.
- The PRT affirms the value of the young-of-the-year surveys and is adamant that they need to be performed on an annual basis and data included in compliance reports.

#### Maine Glass Eel Fishery

**Review and Update** 

Commissioner, Patrick Keliher

#### Summary

- Under current FMP Maine is allowed:
  - 744 Licenses & 1242 Pieces of Gear (fyke/dip)
- 2013 Total Licenses 705 Total Gear 864
  - DMR Licenses 433 with 550 pieces of gear
  - Authorized Tribal Licenses 272 with 314 pieces of gear
- 2012 Total Landings 19,000 /\$40,000,000
- 2013 Landings 13,660 pounds with a value of \$25,237,208 as of 05/15/2013

#### 2013 Law Changes

- Mandatory \$2000 fine
- 2 Strikes lifetime loss of license
- All violations now criminal
- Sales to dealer require photo ID
- Check only no more cash
- Marine Patrol now has access to confidential landings data for enforcement purposes

#### Patrol / Violations Summary

- \$60,000 in Authorized Overtime
- 2012 Total Summonses 293
- 2013 Total Summonses 209
  - Violation's down while patrol effort is up

#### **Next Steps**

- Additional law changes including lifetime revocation for selling poached eels
- Fixed Place of Business
- Export License chain of custody
- Reporting swipe card system
- Need strong response from USFWS LE when states make cases related to Lacey Act -





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 May 21, 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





#### **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



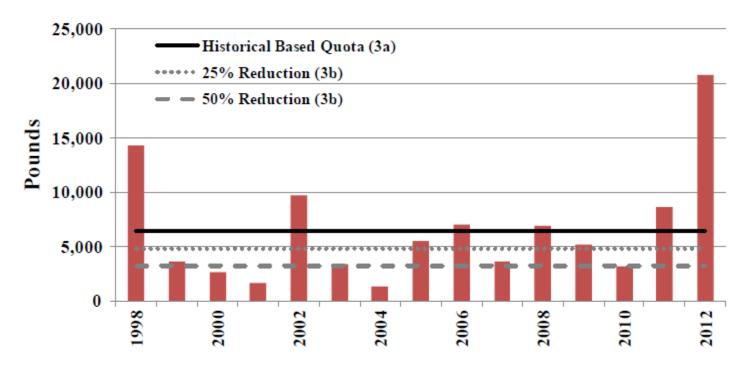
- Glass Eel Fisheries Measures (ME and SC only)
  - -Option 1: Status Quo
  - -Option 2: Closure
    - Immediate
    - Delayed (5 years or other timeframe specified)



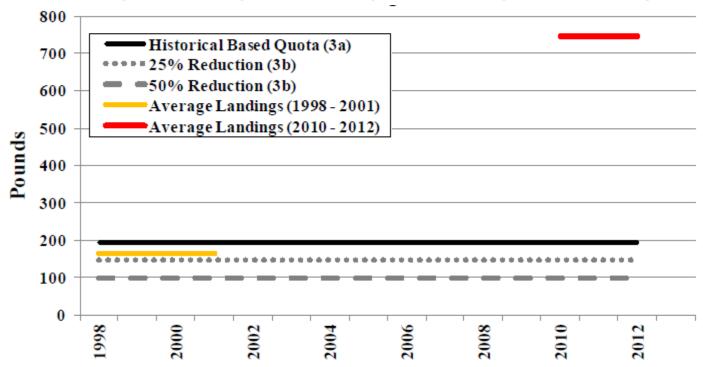
- Glass Eel Fisheries Measures (ME and SC only)
  - -Option 3: Quota
    - Historical Average (1998 2012)
    - Harvest Reductions (25% and 50%)



	Allocation	Difference*	Estimated Value		
	Allocation	Difference.	\$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



	Allocation	Difference*	Est. Value		
_	Allocation Difference*		\$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



- 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

- 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



- Yellow Eel Fisheries Measures
  - Option 3: Gear Restrictions
    - Status Quo
    - 3/4 by 1/2 inch minimum mesh size or escape panel
    - 1 by ½ 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%	-

- 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
_	3a	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	(Average 2009-2011)
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
	3b	3d - 20% reduction*	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	(Average landings from 2009-2011)
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					Decemb Harring
	3c	3d - 20% reduction	3d - 30% reduction	3d - 40% reduction	3d - 50% reduction	Recent Harvest (Average 2009-2011)
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

#### Option 5: Reporting Requirements

trip level ticket system for dealer and harvester reporting



# Praft 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
  - Option1: 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	UNKNO	OWN					
DE							
MD	,						
DC							
PRFC							
VA							
NC	UNKNO	OWN					
SC	UNKNO	)WN					
GA	UNKNO	UNKNOWN					
FL	UNKNO	OWN					



## 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 bay limit
- Option 3: Party/Charter Boat Exemption
  - If Option 2 is chosen, the Board may consider
  - Maintains current 50 fish/day limit





#### **Implementation**

• Determined by the Management Board

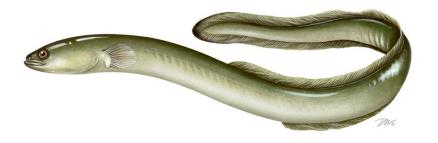






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# Draft Addendum III Public Comment Summary





### **Public Comment Summary**

- Public Comment Period ran March 20 May 2
- 13 public hearings were held in 12 states
  - Hearings were held in all states except FL, PA, CT, and DC
  - NY had two hearings
  - 111 people in attendance at ME hearing
  - 139 people at remainder of hearings
- Written comment was received by 30 individuals and 31 organizations



- Glass eel fishery management options
  - Majority in favor of maintaining the status quo (17)
     or opposed to closing the fishery (6).\*
  - Six comments in support of the pigmented eel tolerance and five comments in opposition to quota.
  - A few comments in support of the closure of the glass eel fishery, implementation of a quota, and increased reporting requirements.





- Yellow eel fishery management options
  - Majority of comments in opposition to implementing a quota (64), the two week fall closure (44), and increased reporting (32).
  - Majority of comments in favor of implementing a min size (42) and gear restrictions (40). \*
    - Six comments in opposition to a min size.
  - Fifteen people were in favor of the status quo





- Under proposed silver eel fishery management options 17 people commented in favor of the status quo and 23 were in favor of a gear restrictions/seasonal closure.
- Under the proposed recreational fishery management measures the comments supported a 25 fish creel limit (20), status quo (13), exemption for the party and charter boat industry (3).



- Better data is needed before management action is taken / there is too much uncertainty
- The population is stable and increasing.
- Demand decreasing
- Need to focus on habitat improvements, water quality, dam removal and fish passage
- There needs to be more socioeconomic info
- Need to act now
- Restocking should be considered
- Need state flexibility





- Glass Eel Management Options
  - Slightly more than half (19) of the individual comments received were in favor of a glass eel closure.
  - Three comments were in support of the status quo for the glass eel fishery.
  - One comment was in favor and three comments were opposed to the use of quotas in the glass eel fishery.





- Yellow Eel Management Measures
  - Five comments were in support of a yellow eel quota.
  - Two comments were submitted each for in opposition to any gear requirements and in support of a complete closure of the yellow eel fishery.
  - One comment was submitted each in opposition for size limits and the two week closure





- Silver Eel Fishery Measures
  - Nine individual comments were submitted in support of time closures in the silver eel fishery, with three more comments provided expressing support for the closure of the fishery.
  - One individual comment was submitted in support of allowing the silver eel fishery to continue as it is a small fishery.





- Recreational Fishery Options
  - All individual comments received addressing the recreational fishery (8) were in favor of a 25 fish per day creel limit.
  - One person commented that party and charter boats should be allowed 25 eels per passenger, including crew and captain





#### General Comments

- In favor of SQ due to the uncertainty in SA, the stock is stable/healthy, or there is a need for more data before action
- In support of improving habitat and passage
- There were equal comments received that the stock is in decline, that the stock is stable or increasing, and the catch is increasing even though effort is decreasing.



### **Organizations**

- 8 Towns and Great Marsh (MA)
- American Eel Sustainability Association
- Brookfield Renewable Energy Group
- Coastal Conservation Assoc of NH
- CT River Atlantic Salmon Commission
- Eel River Watershed Association
- MD Watermen's Association
- ME Elver Fishermen Association
- Harwich (MA) Conservation Commission
- League of Barnstable County (MA)
- North South River Watershed Assoc
- Wildlife Conservation Society
- Barnstable County (MA) Coastal Resources
- Village Harbor Fishing Club (NJ)

- Mashpee Wampanoag Tribe
- Rec Fishing Alliance
- RI Saltwater Anglers
- RI Party Charter Boat
- Sandwich DNR
- Save the Bay (RI)
- Garden State Seafood
- DE Valley Fish Co
- Assoc to Preserve Cape Cod
- NJ Marine Fish Council
- Maine Rivers
- Penobscot Bay Watch
- Mass Shellfish Officers
- Jersey Coast Anglers
- TNC
- NY DEC



- Glass Eel Management Options
  - Slightly more than half (18) were in favor of a glass eel closure.
  - Six were in favor of implementing a quota, with various recommendations of which quota
  - Four comments were in favor of increased reporting (trip ticket).
  - Three comments were received each in support of maintaining the status quo or the pigmented eel tolerance.



- Yellow Eel Management Options
  - 8 comments in support the min size (general increase or an 8, 9, 10, or 11 inch)
  - 7 comments in favor of SQ
  - -7 comments for mesh reqs (1 x  $\frac{1}{2}$ ,  $\frac{1}{2}$  x  $\frac{3}{4}$   $\frac{1}{2}$  x  $\frac{1}{2}$ )
  - 6 comments in favor of increased reporting
  - 5 comments in support and in opposition of fall closure
  - 4 comments in support of quota system (multiple recommendations for allocation) and 3 comments opposed to a quota system.



- Silver Eel Management Options
  - 8 comments in support of increased silver eel restrictions or time closures as this life stage need the greatest protection.
  - 5 comments in favor of SQ
  - 1 comment supported closing the silver eel fishery and 1 commented requested that a limited number of licenses be allowed for a limited amount of time.





- Recreational Management Options
  - 8 comments were in support of 25 fish/day/angler bag limit, with 1 comment received that all anglers on party/charter boats, including crew/captain, should be subject to the same limit.
  - 7 comments were in support of SQ
  - 1 comment was received in support of and 1 comment was received in opposition of a party/charter boat exemption.



#### General Comments

- Eel pops are in decline / concern about depletion
- Support for improving habitat and fish passage
- Poaching concerns
- Possible ESA listing
- Commended law enforcement efforts
- Increase conservation efforts
- More monitoring / a complete life cycle survey is needed





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

### **Advisory Panel Report**





### **Advisory Panel**

- Meeting held on May 10<sup>th</sup>
- 10 members were in attendance or provided comments prior to the meeting





- Habitat Recommendations
  - Supports recommendations
  - Strongly supports the development of a plan to implement these recommendations and a timeframe for completion.
  - Strongly supports collaborating with ACFHP, USFWS, NMFS, and other agencies in completing these important goals.



#### Monitoring

- Supports any improvements in monitoring programs.
- Requests consideration for the TC to review the current monitoring program and develop specific recommendations to improve the programs
  - Seek guidance from the AP, where appropriate
- Supports monthly dealer and harvester reporting submission requirements



- The majority of the AP members were in favor of Option 1 (Status Quo).
- However, the AP recommends the following for the Board's consideration:
  - (Unanimously) If a state has a glass eel fishery,
     then that state must conduct a complete life cycle survey for eels.
  - (Unanimously) Recommends requiring real time reporting for harvesters and dealers.



- (Unanimously) Recommends the Board consider a ban on harvesting of glass eels that will not pass through a 1/8 inch non-stretchable mesh. The AP would also recommend a 1% tolerance by count to this requirement.
- (Unanimously) Recommends that the Board consider prohibition on harvest directed on multiple life stages
- A minority was in favor of increased conservation efforts. One member was in favor of phased out closure.



#### Yellow Eel Fishery

- (Unanimously) Supported Option 2 (Min Size)
  - 8 inch minimum size restriction through ½ by ½ inch mesh requirements.
  - Use of ½ by ½ mesh will possibly result in a higher min than 8 inches, as catch would likely be 8 to 10 inches.
  - Recommends allowing implementation of this regulation through the use of an escape panel for a specified time frame
  - States which have more conservative mesh requirements should be required to maintain them.
- Opposition to quota and fall closure



- Silver Eel Fishery
  - -(Unanimously) Supported Option 2
    - Exception for the state of New York to allow up to 6 weirs to fish in the Delaware River, with the licenses issued to those with a long term interest in the fishery.





- Recreational Fishery
  - (Unanimously) supported Option 2 (25 fish per day per angler bag limit), which includes passengers/crew on party/charter boats.
  - Supports same minimum size for both commercial and recreational fisheries

