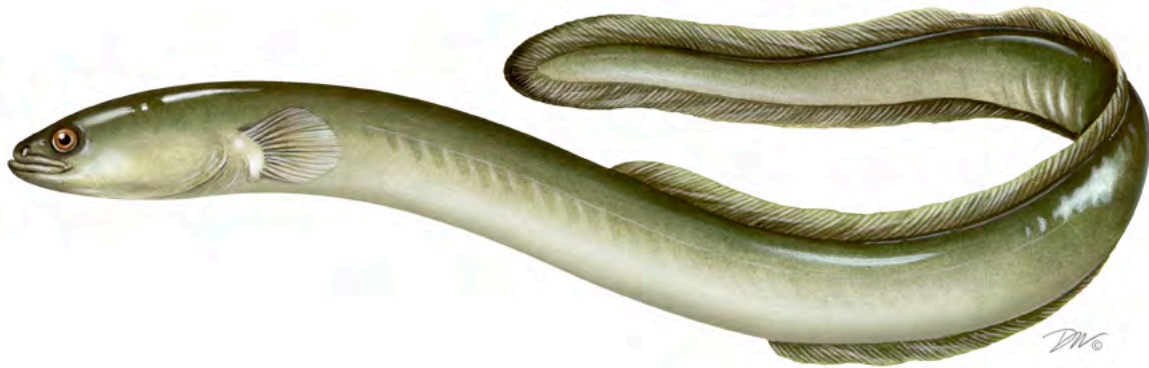


2012 REVIEW OF THE
ATLANTIC STATES MARINE FISHERIES COMMISSION
FISHERY MANAGEMENT PLAN FOR
AMERICAN EEL
(Anguilla rostrata)

2011 FISHING YEAR



Prepared by:

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**2012 REVIEW OF THE ASMFC FISHERY MANAGEMENT PLAN FOR
AMERICAN EEL
(*Anguilla rostrata*)**

I. Status of the Fishery Management Plan

<u>Date of FMP approval:</u>	November 1999
<u>Addenda:</u>	Addendum I (February 2006) Addendum II (October 2008)
<u>Management unit:</u>	Migratory stocks of American Eel from Maine through Florida
<u>States with a declared interest:</u>	Maine through Florida, including the District of Columbia and the Potomac River Fisheries Commission
<u>Active committees:</u>	American Eel Management Board, Plan Review Team, Technical Committee, Stock Assessment Subcommittee, and Advisory Panel.

The ASMFC American Eel Management Board first convened in November 1995 and finalized the Fishery Management Plan (FMP) for American Eel in November 1999 (ASMFC 2000a). The major goal of the FMP is to conserve and protect the American eel resource to ensure ecological stability while providing for sustainable fisheries. In support of this goal, the following objectives are included:

The FMP requires that all states and jurisdictions implement an annual young-of-year (YOY) abundance survey by 2001 in order to monitor annual recruitment of each year's cohort. In addition, the FMP requires all states and jurisdictions to establish a minimum recreational size limit of six inches and a recreational possession limit of no more than 50 eels per person, including crew members involved in party or charter (for-hire) employment for bait purposes during fishing. Recreational fishermen are not allowed to sell eels without a state license. Commercial fisheries management measures stipulate that states and jurisdictions shall maintain existing or more conservative American eel commercial fishery regulations for all life stages. States with minimum size limits for commercial eel fisheries must retain those minimum size limits, unless otherwise approved by the American Eel Management Board. Each state is responsible for implementing management measures within its jurisdiction to ensure the sustainability of the American eel population that resides within state boundaries.

In August 2005, the American Eel Management Board directed the American Eel Plan Development Team (PDT) to initiate an addendum to establish a mandatory catch and effort monitoring program for American eel. The Board approved Addendum I at the February 2006 Board meeting.

In January 2007, the Management Board initiated the development of a draft Addendum with the goal of increasing the escapement of silver eels to the spawning grounds. In October 2008, the Management Board approved Addendum II to the American Eel FMP, with some modification. The Addendum places increased emphasis on improving the upstream and downstream passage of American eel and maintains the status quo on management measures. The Management Board chose to delay action on management measures in order to incorporate the results of the upcoming stock assessment.

In August 2012 the Management Board initiated the development of Draft Addendum III with the goal of reducing mortality on all life stages of American eel. The addendum was initiated in response to the findings of the 2012 Benchmark stock assessment which declared American eel stock along the US East Coast as depleted. The Management Board will approve the final measures, if any, in 2013.

II. Status of the Stock

In 2009, the Management Board initiated the start of a new assessment. After reviewing over 100 surveys and studies that catch eel, the American Eel Stock Assessment Subcommittee selected 19 young-of-year surveys and 15 yellow eel surveys along the East Coast for use as indices of abundance in the assessment. Despite the large number of surveys and studies available for use in this assessment, the American eel stock is still considered data-poor because very few surveys target eels and collect information on length, age, and sex of the animals caught. Also, eels have an extremely complex life history that is difficult to describe using traditional stock assessment models. Therefore, several data-poor methods were used to assess the American eel resource. The first set of analyses (trend analyses) aimed at determining if there was a statistically significant trend in the fishery-independent survey data and whether or not there was evidence for significant trends at the regional and coast-wide scales. The second approach involved a model called Depletion-Based Stock Reduction Analysis (DB-SRA) which uses trends in historical catch to estimate biomass trends and maximum sustainable yield. Both trend analyses and DB-SRA results indicate that the American eel stock has declined in recent decades and the prevalence of significant downward trends in multiple surveys across the coast is cause for concern. Therefore, the stock status for American eels is depleted. The Benchmark Stock Assessment was peer reviewed in March 2012. The assessment passed peer review and was approved for management use in May 2012.

In 2003, declarations from the International Eel Symposium (AFS 2003, Quebec City, Quebec, Canada) and the Great Lakes Fisheries Commission (GLFC) highlighted concerns regarding the health of eel stocks worldwide. In 2010, Canada Department of Fisheries and Oceans (DFO) conducted a stock assessment on American eels in Canadian waters and found that region-specific status indices show abundance relative to the 1980s is very low for Lake Ontario and upper St. Lawrence River stock, and either unchanged or increasing in the Atlantic Provinces. A joint stock assessment by both Canada DFO and the Commission was recommended by the American Eel Stock Assessment Subcommittee as an approach for the next assessment.

III. Status of the Fishery

American eel currently support commercial fisheries throughout their range in North America, with significant fisheries occurring in the US Mid-Atlantic region and Canada. These fisheries are executed in riverine, estuarine, and ocean waters. In the US, commercial fisheries for glass eel/elver exist in Maine and South Carolina, whereas yellow/silver eel fisheries exist in all states and jurisdictions with the exception of Pennsylvania and the District of Columbia.

Although eel have been continuously harvested, consistent data on harvest are often not available. Harvest data from the Atlantic coastal states (Maine to Florida) indicate that the harvest fluctuated widely between 1970 and 1980, but showed an increasing trend and peaked in 1979 at 3,951,936 pounds. Harvest has declined since then, with the lowest harvest occurring at 641,225 pounds in 2002. Because fishing effort data is unavailable for the entire time series, finding a correlation between population numbers and landings data is difficult.

Commercial

Commercial landings have decreased from the high of 3.95 million pounds in 1979 to a low of 641,000 pounds in 2002, and have not exceeded one million pounds since 1996¹. State reported landings of yellow/silver eels in 2011 totaled 1,131,575 pounds² (Table 1), which represents a 30% increase in landings from 2010 (872,663 pounds). Landings reported by NMFS totaled 1,168,596 pounds. In 2011, state reported landings from New Jersey, Maryland, and Virginia each totaled over 100,000 pounds of eel, and together accounted for 78% of the coastwide commercial total landings. Landings of glass eels were reported from Maine and South Carolina and totaled 9,128 pounds. Landings of glass eels have fluctuated from over 14,000 pounds in 1998 to a low of 1,282 pounds in 2004.

Table 1. 2011 Commercial Landings by state and Life Stage^{1,2}

	State Reported		NMFS
	Glass	Yellow	
Maine	8,584	3,425	9,391
New Hampshire			
Massachusetts		368	365
Rhode Island		1,521	2,038
Connecticut		80	60
New York		33,721	35,557
New Jersey		120,576	129,065
Pennsylvania			
Delaware		92,181	90,631
Maryland		655,650	731,622
D.C.			
PRFC		29,010	
Virginia		110,259	108,387
North Carolina		59,181	61,480
South Carolina	544	2	
Georgia[^]			
Florida		25,601	
Total	9,128	1,131,575	1,168,596

[^]Landings are confidential

Recreational

Available information indicates that few recreational anglers directly target eel. For the most part, hook-and-line fishermen catch eel incidentally when fishing for other species. The National Marine Fisheries Service (NMFS) Marine Recreational Fisheries Statistics Survey (MRFSS), which has surveyed

¹ Personal communication, National Marine Fisheries Service, Fisheries Statistics Division, Silver Spring, MD

² Harvest data for 2008 comes from the 2009 State Compliance Reports. All landings are preliminary and some are incomplete.

recreational catch in ocean and coastal county waters since 1981, shows a declining trend in the catch of eel during the latter part of the 1990s. As of 2009, MRFSS (now the Marine Recreational Information Program) data are no longer provided for American eel. This is a result of the unreliable design of MRFSS that focuses on active fishing sites along coastal and estuarine areas. In previous years the proportional standard error (PSE) has ranged from 0-100.1. Eel are often purchased by recreational fishermen for use as bait for larger gamefish such as striped bass, and some recreational fishermen may catch their own eels to utilize as bait.

Table 2. State commercial regulations for the 2012 fishing year.*

State	Size Limit	License/Permit	Other
ME		Harvester license. Dealer license and reporting.	Seasonal closures. Gear restrictions.
NH	6"	Commercial saltwater license and wholesaler license. Monthly reporting.	50/day for bait. Gear restrictions in freshwater.
MA	6"	Commercial permit with annual catch report requirement. Registration for dealers with purchase record requirement.	Nets, pots, spears, and angling only. Mesh restrictions. Each of 52 coastal towns has its own regulations.
RI	6"	Commercial fishing license.	
CT	6"	Commercial license. Dealer reporting.	Gear restrictions
NY	6"	Commercial harvester license and reporting. Dealer license.	Gear restrictions.
NJ	6"	License required.	Gear restrictions.
PA	NO COMMERCIAL FISHERY		
DE	6"	License required.	Commercial fishing in tidal waters only. Gear restrictions.
MD	6"	Licensed required with monthly reporting.	Prohibited in non-tidal waters. Gear restrictions.
DC	NO COMMERCIAL FISHERY		
PRFC	6"	Harvester license and reporting.	Gear restrictions.
VA	6"	Harvester license required. Monthly reporting.	Mesh size restrictions on eel pots. Bait limit of 50 eels/day. Seasonal closures.
NC	6"	Standard Commercial Fishing License for all commercial fishing	Mesh size restrictions on eel pots. Bait limit of 50 eels/day. Seasonal closures.
SC		License for commercial fishing and sale. Permits by gear and area fished. Monthly reporting.	Gear restrictions.
GA	6"	Personal commercial fishing license and commercial fishing boat license. Harvester/dealer reporting.	Gear restrictions on traps and pots. Area restrictions.
FL		Permits and licenses.	Gear restrictions.

* For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

Table 3. State recreational regulations for the 2012 fishing year.**

State	Size Limit	Possession Limit	Other
ME	6"	50 eels/person/day	Gear restrictions. License requirement and seasonal closures (inland waters only).
NH	6"	50 eels/person/day	Coastal harvest permit needed if taking eels other than by angling. Gear restrictions in freshwater.
MA	6"	50 eels/person/day	Nets, pots, spears, and angling only; mesh restrictions. Each of 52 coastal towns has its own regulations.
RI	6"	50 eels/person/day	
CT	6"	50 eels/person/day	
NY	6"	50 eels/person/day	Additional length restrictions in specific inland waters.
NJ	6"	50 eels/person/day	
PA	6"	50 eels/person/day	Gear restrictions.
DE	6"	50 eels/person/day	Two pot limit/person.
MD	6"	No possession limit in tidal areas; 25/person/day limit in non-tidal areas	Gear restrictions.
DC	6"	10 eels/person/day	
PRFC	6"	50 eels/person/day	
VA	6"	50 eels/person/day	Recreational license. Two pot limit. Mandatory annual catch report. Mesh size restrictions on eel pots.
NC	6"	50 eels/person/day	Gear restrictions. Non-commercial special device license. Two eel pots allowed under Recreational Commercial Gear license.
SC	6"	50 eels/person/day	Gear restrictions and gear license fees.
GA	None	None	
FL	None	None	Gear restrictions.

** For specifics on licenses, gear restrictions, and area restrictions, please contact the individual state.

IV. Status of Research and Monitoring

The FMP requires states and jurisdictions with a declared interest in the species to conduct an annual young-of-the-year (YOY) survey for the purpose of monitoring annual recruitment of each year's cohort. In 2011, the states of Maine, New Hampshire, New York, South Carolina and Georgia had average or below average YOY survey counts. However, the catch of glass eels was poached on six separate nights in Maine, which may influence the overall results. The states of Rhode Island, Connecticut, Maryland, and Virginia had above average YOY survey counts. A total of 30,874 young-of-the-year American eel were observed in Rhode Island's 2011 recruitment survey, which was the highest on record.

The FMP does not require any other research initiatives in participating states and jurisdictions. Nonetheless, the American Eel Technical Committee has identified several research topics that could further understanding of the species' life history, behavior, and biology. Research needs for American eel include:

High Priority

- Accurately document the commercial eel fishery so that our understanding of participation in the fishery and the amount of directed effort could be known.
- Investigate, develop, and improve technologies for American eel passage upstream and downstream at various barriers for each life stage. In particular, investigate low-cost alternatives to traditional fishway designs for passage of eel.
- A coastwide sampling program for yellow and silver American eels should be formulated using standardized and statistically robust methodologies.
- Regular periodic stock assessments and establishment of sustainable reference points for eel are required to develop a sustainable harvest rate in addition to determining whether the population is stable, decreasing, or increasing.
- Research the effects of swim bladder parasite *Anguillacolla crassus* on the American eel's growth and maturation, migration to the Sargasso Sea, and the spawning potential.
- Evaluate the impact, both upstream and downstream, of barriers to eel movement with respect to population and distribution effects. Determine relative contribution of historic loss of habitat to potential eel population and reproductive capacity.

Medium Priority

- Investigate survival and mortality rates of different life stages (leptocephalus, glass eel, yellow eel, and silver eel) to assist in the assessment of annual recruitment. Continuing and initiating new tagging programs with individual states could aid such research.
- Tagging Programs: A number of issues could be addressed with a properly designed tagging program. These include:
 - Natural, fishing, and/or discard mortality; survival
 - Growth
 - Validation of aging method(s)
 - Reporting rates
 - Tag shedding or tag attrition rate
- Research contaminant effects on eel and the effects of bioaccumulation with respect to impacts on survival and growth (by age) and effect on maturation and reproductive success.
- Investigate: fecundity, length, and weight relationships for females throughout their range; growth rates for males and females throughout their range; predator-prey relationships; behavior

and movement of eel during their freshwater residency; oceanic-behavior, movement, and spawning location of adult mature eel; and all information on the leptocephalus stage of eel.

- Assess characteristics and distribution of eel habitat and value of habitat with respect to growth and sex determination.
- Identify triggering mechanism for metamorphosis to mature adult, silver eel life stage, with specific emphasis on the size and age of the onset of maturity, by sex. A maturity schedule (proportion mature by size or age) would be extremely useful in combination with migration rates.

Low Priority

- Perform economics studies to determine the value of the fishery and the impact of regulatory management.
- Review the historic participation level of subsistence fishers in wildlife management planning and relevant issues brought forth with respect to those subsistence fishers involved with American eel.
- Examine the mechanisms for exit from the Sargasso Sea and transport across the continental shelf.
- Research mechanisms of recognition of the spawning area by silver eel, mate location in the Sargasso Sea, spawning behavior, and gonadal development in maturation.
- Examine age at entry of glass eel into estuaries and fresh waters.
- Examine migratory routes and guidance mechanisms for silver eel in the ocean.
- Investigate the degree of dependence on the American eel resource by subsistence harvesters (e.g., Native American Tribes, Asian and European ethnic groups).
- Examine the mode of nutrition for leptocephalus in the ocean.
- Provide analysis of food habits of glass eel while at sea.

V. Status of Management Measures and Issues

The FMP required that all states and jurisdictions implement an annual young-of-the-year (YOY) abundance survey by 2001 in order to monitor annual recruitment of each year's cohort. In addition, the FMP requires all states and jurisdictions to establish a minimum recreational size limit of six inches and a recreational possession limit of no more than 50 eels per person, including crew members involved in party or charter (for-hire) employment, for bait purposes during fishing. Recreational fishermen are not allowed to sell eel without a state license permitting such activity. Commercial fisheries management measures stipulate that states and jurisdictions shall maintain existing or more conservative American eel commercial fishery regulations, including gear specification contained in Table 2 of the FMP, for all life stages.

Since 2008 delegates from the Atlantic States Marine Fishery Commission have met with representatives from the Great Lakes Fishery Commission, U.S Fish and Wildlife Service, and NOAA Fisheries to work together to improve American eel management. The groups agreed to jointly develop a Memorandum of Understanding that would outline a strategy to work together to more effectively manage this international resource.

Proposed Endangered Species Act Listing of American Eel

American eel were petitioned for listing as threatened under the Endangered Species Act (ESA) in April 2010 by the Center for Environmental Science, Accuracy, and Reliability (CESAR, formally the Council for Endangered Species Act Reliability). USFWS published a positive 90 day finding on the petition in September 2011, stating that the petition may be warranted and a status review will be conducted. CESAR filed a lawsuit in August 2012 against USFWS for failure to comply with the statutes of the ESA,

which specifies a proposed rule based on the status review be published within one year of the receipt of the petition. A Settlement Agreement was approved by the court in April 2013. The settlement requires USFWS to publish a 12-month finding by September 30, 2015. The USFWS previously reviewed the status of the American eel in 2007 and found that, at that time, protection under the Endangered Species Act was not warranted.

VI. Current State-by-State Implementation of FMP Compliance Requirements

The following monitoring program changes occurred in 2011:

- New Jersey – Due to a collapsing overpass, the site for mandated young of the year survey was not accessible.
- North Carolina –NCDMF relies solely on the NOAA Beaufort Lab bridge net index to meet their mandated YOY survey requirement. The NOAA Beaufort Lab bridge net survey data has been requested but elver numbers for 2011 are currently unavailable due to a backlog of processing the samples.

The following regulatory changes for 2012 were documented in the compliance reports:

- Maine – The closed season changed from noon Friday – noon Sunday to noon Tuesday – noon Wednesday and noon Saturday – noon Sunday.

The PRT reviewed the state compliance reports for 2012. The PRT finds that all states are currently implementing the required provisions of the American Eel Fishery Management Plan, with the possible exception that the state of Maine did not submit a proposal in advance of implementing a regulatory change (closed days, see above) as specified under Section 4.4.1 of the Plan to ensure the proposed measures are as conservative or more conservative than the regulations at the time of FMP implementation. The PRT cannot comment on if this change is conservational equivalent. The PDT requested any changes be reviewed by the Technical Committee and Advisory Panel prior to Board approval.

Section 4.4.2 of the FMP stipulates that states may apply for *de minimis* status for each life stage if (given the availability of data), for the preceding two years, their average commercial landings (by weight) of that life stage constitute less than 1% of the coastwide commercial landings for that life stage for the same two-year period. States meeting this criterion are exempted from having to adopt commercial and recreational fishery regulations for a particular life stage listed in Section 4 and any fishery dependent monitoring elements for that life-stage listed in Section 3.4.1.

In 2011, the states of Massachusetts, Pennsylvania, South Carolina, Georgia, and Florida and the District of Columbia requested *de minimis* status for their yellow eel fisheries. Qualification for *de minimis* was determined from state reported landings found in compliance reports. Based on landings, the states of Maine, New Hampshire, Massachusetts, Rhode Island, Connecticut, South Carolina, and Georgia and the District of Columbia qualify for *de minimis* for their yellow eel fisheries. Based on landings the state of Florida does not meet the *de minimis* requirement. The state's average commercial landings for 2010 and 2011 were 3.2% of the total coastwide commercial landings for that same time period. The state currently implements all the requirements of the FMP despite being granted *de minimis* in previous year.

VII. Recommendations/Findings of the Plan Review Team

1. The PRT recommends *de minimis* be granted to the states of Massachusetts, Pennsylvania, South Carolina, Georgia, and the District of Columbia.
2. The PRT requests that state personnel highlight notable trends in annual reports. The PRT also requests that state personnel describe any circumstances that prevented sampling from occurring as required in the FMP and Addendum I, or reasoning for sampling not occurring in a manner consistent with previous years.
3. Landings, effort, and biological data are needed to complete stock assessments. The PRT continues to express concern over the lack of data available for states to report landings by life stage. States are strongly encouraged to collect biological data from landings.
4. 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. The PRT strongly recommends that all states and jurisdictions continue to implement the young-of-the-year survey.

Plan Review Team Report

**Prepared for the American Eel Management Board by the American Eel Plan Review Team
January 2011**

Introduction

The Interstate Fishery Management Plan for American eel requires that states submit annual reports detailing each state's regulations, catch, harvest, bycatch, fishery-dependent and independent surveys, and characterization of other losses for American eel. These reports are utilized by the ASMFC Plan Review Team to determine compliance and must be submitted to the ASMFC by September 1 of each year.

2011 Compliance Review

The Plan Review Team (PRT) reviewed 2012 state annual compliance reports for the 2011 fishing year to determine compliance status. As described in Section 5.2 of the Fishery Management Plan, under Procedures for Determining Compliance, the PRT has summarized the compliance on a state-by-state basis below.

State-By-State Evaluation

MAINE

Comments or trends highlighted in state report:

- Dealers reported landings of 8,584.9 pounds of glass eels, valued at \$7,653,331.86. Of the total, 1,973.64 pounds were taken with dipnets; 6,384.48 pounds were taken with fyke nets; and 226.78 pounds did not have an associated gear type.
- Harvesters make daily estimates of their catch. They reported landing 4,142.9 pounds of glass eels of which 997.1 pounds were taken with dip nets and 3,145.8 pounds were taken with fyke nets.
- Average seasonal catch, calculated from total dealer reported harvest and total number of licensed gear, was 16.4 pounds per net, the highest on record.
- All glass eels were harvested for food. Elvers are exported very soon after purchase.
- A total of 2,060 pounds of eels were taken by the coastal pot fishery, and 1,365 pounds by the inland weir fishery; no harvest was reported to date by the inland pot fishery.
- In the YOY survey a total of 9,658 YOY were caught, which represents the fourth smallest catch on record, and 28 yellow eels entered West Harbor Pond in 2011. However, the catch was poached on 6 dates (5/4, 5/6, 5/9, 5/13, 5/20, and 5/23), and the battery that powers attraction water was dead on 5/16. This was the third lowest catch since the survey began.

Unreported information:

- Projects planned in next five years

Areas of concern:

- Dealer reported glass eel landings are more than twice as high as harvest reported landings.
- Discrepancy between state-reported landings (8,584 pounds yellow (coastal and

inland) and 6,951 pounds elvers) and NMFS reported landings (9,361 pounds).

- No biological data were collected from the commercial fishery. No information on characterization of other losses (impingement, bycatch, poaching, etc..)

Compliance issues:

- In 2012 the closed season changed from noon Friday – noon Sunday to noon Tuesday – noon Wednesday and noon Saturday – noon Sunday. The change from 48 hours of consecutive closure spanning the weekend to two separate 24 hour closures, one of which is during the week, may not have the same conservation benefit.

Recommendations for action by the American Eel Management Board:

- The PDT recommends that any further changes be reviewed by the Technical Committee and Advisory Panel.

NEW HAMPSHIRE

Comments or trends highlighted in state report:

- No individual sold commercially in 2011.
- There were 49 individuals permitted to recreationally harvest American eels in state waters. Out of these 49 individuals, 11 harvested eels. These 11 people harvested a total of 130 pounds, of which, 121.25 pounds were used for bait and 8.75 pounds were used for food.
- 1,491 YOY caught in required fisheries independent sampling in the Lamprey River. This was the fourth lowest on record since monitoring began, although it was an increase from 208 YOY caught in 2010.

Unreported information:

- Planned management for upcoming year

Areas of concern:

- No biological data were collected from the recreational fishery.
- Concern over latent effort with licensing

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

MASSACHUSETTS

Comments or trends highlighted in state report:

- Since 2009, the eel fishery has declined further to historic lows with landings of 368 lbs in 2011, although 119 commercial eel permits were issued. A combination of poor market conditions and lower abundance is discouraging permit holders who were recently active from fishing.
- FI monitoring in the Jones River – After three years of declining catches and the lowest catch rates of the time series in 2010, the 2011 catch rates improved to close to the series mean. Overall, the 11 year data series is showing a fairly flat trend that may be declining slightly.
- FI monitoring in the Parker River was the 2nd highest total in the data series, in terms of YOY numbers, age-1+ numbers and CPUE
- Since 2007, DMF has installed one eel pass per year in cooperation with property owners and project partners

Unreported information:

- Estimates of exports by harvest. Harvest data CPUE.

Areas of concern:

- It does appear likely that some fishermen are not reporting catches used personally for striped bass bait under the false interpretation that only eels sold must be reported. However, the sharp decline in landings during 2009-2011 does seem to reflect actual conditions of declining abundance and fishing effort.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

The Commonwealth of Massachusetts requests *de minimis*. The total landings in Massachusetts are below 1% of the total 2011 coastwide landings, thus Massachusetts meets the requirements for *de minimis*.

RHODE ISLAND

Comments or trends highlighted in state report:

- 1,521 pounds of yellow eels were landed in 2011 in pots or traps.
- A total of 30,874 young-of-the-year American eel were observed in RI's 2011 recruitment survey, which was the highest on record.
- There was a decrease in the number of American eel observed in the RIDFW Marine Fisheries Section fishery-independent trawl and beach seine surveys in 2011.
- Two new eel ramps were operated and maintained in 2011 on the Woonasquatucket River. Seven new eel ramps are currently being designed and planned for 2012 on the Blackstone, Pawcatuck, Saugatucket and Ten Mile Rivers.

Unreported information:

None

Areas of concern:

Estimates of export and CPUE were not available.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

CONNECTICUT

Comments or trends highlighted in state report:

- State reported landings: 80 pounds valued at \$48. Anecdotal information from eel potters implies that the majority of harvest is going to bait
- A total of 30,453 eels were enumerated and released upstream of the Tunnel Dam (*Quinebaug River*) and 5,512 eels (5,090 elver; 422yellow) were enumerated and released upstream of the Rainbow Dam (*Farmington River*).

Unreported information:

- No report of estimate of harvest going to bait vs. food or estimate of exports by season

Areas of concern:

- Two pots are allowed to be fished without a license for personal use. There are no reporting requirements and therefore there are no estimates of catch and harvest

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

NEW YORK

Comments or trends highlighted in state report:

- Reported commercial landings in 2011 were 33,721 pounds valued at \$57,21 (18,669 pounds from pots/trap and 12,630 not coded were the two major gear codes)
- Recreational harvest estimate (MRFSS): 6,437 eels (3,868 harvested and 4,104 released)
- 959 glass eels were caught in the YOY survey which was the fifth highest since the survey began and more than double from 2010.

Unreported information:

- None

Areas of concern:

- No information available for estimates of CPUE, percent going to food or bait, permitted catch for personal use, or exports.

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

NEW JERSEY

Comments or trends highlighted in state report:

- State reported commercial landings: 120,576 pounds from pots. Length, weight and age samples were taken from 289 yellow eels in 2011. The mean length of all samples was 16.49 inches, while the mean weight of all samples was 0.376 and ages ranged from 1 to 13 years, with a majority (20.6%) at age 4.
- The majority of eels (86.18%) were commercially harvested as food, followed by bait (12.13%) and personal use (1.63%).

Unreported information:

- None

Areas of concern:

- None

Compliance issues:

- Sampling for glass eels is conducted in Patcong Creek in Linwood, New Jersey. Unfortunately, due to a collapsing overpass, the survey site was not accessible in 2011. The Commission was contacted and told prior to the start of the sampling season. Every effort was made to find an alternative site but it was not possible.

Recommendations for action by the American Eel Management Board:

- None

PENNSYLVANIA

Comments or trends highlighted in state report:

- No eels were collected in the trap during the seven-week YOY sampling period. To supplement YOY sampling, electrofishing surveys were conducted at six sites in 2011. Six young-of-year eels were captured at an average rate of one per site.

Unreported information:

- The compliance report does not characterize other losses to the eel population. The report does not identify the projects planned for the next five years.

Areas of concern:

- None

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- Pennsylvania requests *de minimis*. There is no commercial fishery for eel in the State. American eels cannot be taken from the wild and sold, traded, exported, etc.

DELAWARE

Comments or trends highlighted in state report:

- State reported commercial landings: 92,181 pounds (33% increase from 2011 but 19% less than mean annual landings during 1999 through 2011)
- The number of eel licenses sold decreased to 63 in 2011 from 65 in 2010 and 2011. Only 23 licensees reported landing eels in 2011.
- Yellow eels for food use comprised 65,740 pounds or 71% of total reported landings, and bait eels were the remaining 26,441 pounds or 29% of the total.
- Effort, measured in eel pot days, increased by 46% between 2010 and 2011, but catch per pot day, measured in pounds caught per pot per day fished decreased 9% between 2010 and 2011
- A sub-sample of 260 commercially caught American eels were measured and weighed and 238 of the 260 were aged to estimate the composition of the commercial catch. The sampled eels ranged in length from 155 to 615 mm with a mean length of 363 mm, and ranged in weight from 20 to 539 g with a mean weight of 104 g. This was a 35 mm decrease in mean length and a 19.7 g decrease in mean weight from 2010. The sampled eels ranged in age from 1 to 9 years old, with a mean age of 4.
- Estimated recreational catch: 34,550 (90% increase from 2010).
- The YOY survey captured an estimated 97,907 glass eels during 2011. The 2011 glass eel catch was 94% higher than the 2010 glass eel catch, and the median daily catch was 92% higher than the 2010 median catch. Despite the increase in catch between 2010 and 2011, the low annual catches during 2008 through 2010 suggested that either the American eel year classes were weak during these years or that some unknown factor or factors were reducing glass eel recruitment to Indian River.

Unreported information:

- None

Areas of concern:

- Personal use harvest not available.

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

MARYLAND

Comments or trends highlighted in state report:

- State reported commercial landings: 655,650 pounds. This was the highest annual total since 1983 when a commercial license was first required to harvest eels. Landings have exceeded the time series mean for seven consecutive years. Since 1990, both American eel landings and CPUE have shown an overall positive trend.
- Harvest of eels for trotline bait in 2010 and 2011 increased 500% and 300% respectively.
- A total of 264 commercially harvested American eels were sampled. Length distributions showed relatively even dispersal across most length groups and more than 11% of the catch had mean lengths greater than 600mm (Figure 2). This was the first time eels greater than 600mm comprised more than 10% of the total catch in any one sample since 1997. Prevalence rate of the nematode swim bladder parasite *Anguillicola crassus* during 2011 in the Susquehanna River eels (N = 83) was 58%. Females dominated the catch in the Susquehanna in 2011 with a 2.6:1 female to male ratio.
- A total of 377 commercially harvested American eels were sampled from the Potomac River in spring 2011. Prevalence rate of the nematode swim bladder parasite *Anguillicola crassus* was 35% (N = 80). The female/male sex ratio for the Potomac River was a 2.6:1 ratio. Eel length distributions in 2011 showed a few more eels in the 320-360mm range and slightly more very large eels (>520mm).
- A total of 140,068 glass eels and elvers were captured over the YOY sampling period. After the highest annual CPUE (247.5 elvers/hour) occurred in 2010, the CPUE in 2011 reverted back to 119.8 elvers/hour, just below the twelve year time series mean of 121.4 elvers/hour. The survey start date has been modified to a slightly earlier date each of the last 4 years to ensure sampling would coincide with peak inshore migration of glass eels.
- In addition to Maryland's primary YOY site, a site located at Bishopville prong, a coastal bay tributary to the St. Martin River was sampled in 2011. This site was previously sampled in 2000 and 2001. A total of 143,757 glass eels and elvers were captured over the entire sampling period for an annual CPUE of 126.4 elvers/hour. Catches in 2011 were significantly greater than in 2000 and 2001 where CPUE's were 14.9 and 6.5 elvers/hour, respectively. More than five times as many glass eels and elvers were captured with 50% less effort.
- Eels larger than 400 mm in the Sassafras River have increased from 2% of the total catch (FI Pot Survey) in the 1998-2000 study to 13% from 2006-2011, while the mean length has increased from 308mm to 337mm.
- Prevalence rate of swimbladder parasite *Anguillicola crassus* for combined sexes 92% in a silver eel survey on the Corsica River.

Unreported information:

- None

Areas of concern:

- None

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

DISTRICT OF COLUMBIA

Comments or trends highlighted in state report:

- FI elver monitoring caught no eels. FI backpack electrofishing caught 1,121 eels (7 YOY and 975 elvers).
- In 2011 the fisheries management branch participated in a study that entailed the assessment of adult American eels in the Potomac and Anacostia Rivers in commercial pots. Sampling for adult eels spanned May through September, alternating each month for a total of twelve weeks. A total of 32 eel were caught with the majority (12) being caught in the month of September.

Unreported information:

- None

Areas of concern:

- None

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- The District of Columbia requests *de minimis* status. There is no commercial fishery for American eel in the District.

POTOMAC RIVERS FISHERY COMMISSION

Comments or trends highlighted in state report:

- Reported commercial harvest: 29,010 pounds (decreased 50% from the 2010 harvest, which was the lowest level since our records began in 1964).
- Based on data supplied by the harvesters, about 50% of the harvest went to live markets (food) and 50% were sold or used as bait.

Unreported information:

- None

Areas of concern:

- No estimates of export are available. No biological data are collected from the commercial harvest.

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

VIRGINIA

Comments or trends highlighted in state report:

- State reported commercial landings: 110,259 pounds (with an estimated 103,302

harvested in state waters). The majority of Virginia's in-state harvest was from the Rappahannock River.

- The MRIP estimate of the number of American eels that were released alive (Type B2) from Virginia's recreational fishery in 2011 was 10,843 fish (PSE 78.0%).
- A total of 12,871 glass eels were collected at Wareham's Pond on the James River, 69,660 glass eels were collected at Brackens Pond and 66,953 at Wormley Pond on the York River, while 1,860 glass eels were collected at Kamp's Millpond on the Rappahannock River in 2011. Elver indices increased at all sites compared with last year with Bracken's Pond recording the second highest number of elvers in the time series

Unreported information:

- None.

Areas of concern:

- Estimates of personal use and percent harvest for food or bait not available.

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- None

NORTH CAROLINA

Comments or trends highlighted in state report:

- State reported commercial landings: 59,181 pounds from 127 commercial trips. Eel pots were the dominant commercial gear and the majority of the landings occurred in the Albemarle Sound.
- The YOY monitoring program was eliminated in 2009 due to state budget issues. For 2009 - 2011 YOY data has been requested from the NOAA bridge net survey for North Carolina. NMFS currently has a backlog of samples and funding sources are being sought to process them.
- The Recreational Commercial Gear License survey ended in 2008 due to budget constraints.

Unreported information:

None

Areas of concern:

The report does not provide 1) an estimated percent of harvest going to food versus bait, 2) estimates of export by season, 3) commercial catch permitted for personal use. Biological data were not collected from the commercial fishery.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

SOUTH CAROLINA

Comments or trends highlighted in state report:

- State reported commercial landings: 544 pounds of glass eels from ten permit holders from fyke nets. 2 pounds of yellow eels were landed.

- 976 glass eels were caught in the YOY survey for Upper Goose Creek, which was the third lowest on record since the survey began.

Unreported information:

- None

Areas of concern:

- Biological data were not collected from the commercial fishery. Estimates of personal use and percent harvest for food or bait not available.

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- The State of South Carolina requests *de minimis*. South Carolina meets the requirements for *de minimis*.

GEORGIA

Comments or trends highlighted in state report:

- Landings are considered confidential due to the low number of dealers who report harvest.
- The recreational harvest of eels in Georgia is minimal at best. Therefore, Georgia does not regulate nor plan to regulate the fishery at this time. Recreational census data comes from the Altamaha and Satilla Rivers and is collected by CRD's sister division Wildlife Resources Division. Expanded estimates for the Altamaha River indicate that 272 eels were harvested and 1,239 caught and released alive. No eels were captured in data collection efforts in the Satilla River.
- The 2011 YOY American eel survey began in January and concluded six weeks later in mid-February. A total of 27 field days were logged. A total of 47 YOY eels were collected.

Unreported information:

- The compliance report does not directly address projects planned for the next five years.

Areas of concern:

- None

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- The State of Georgia requests *de minimis* status. Georgia meets the requirements for *de minimis*.

FLORIDA

Comments or trends highlighted in state report:

- State reported commercial landings: 25,601 the highest since 1996.
- In 2011 bait eels (less than 12 inches) comprised approximately 14% of the commercial eel harvest. Silver eels were been reported in 2011, but they comprised no more than 7 % of the total harvest.

Unreported information:

- The report does not characterize other losses to the eel population.

Areas of concern:

- None

Compliance issues:

- None

Recommendations for action by the American Eel Management Board:

- The State of Florida requests *de minimis* status. Based on landings the state of Florida does not meet the *de minimis* requirement. The state's average commercial landings for 2010 and 2011 were 3.2% of the total coastwide commercial landings for that same time period.

De minimis

Section 4.4.2 of the FMP stipulates that states may apply for *de minimis* status for each life stage if (given the availability of data), for the preceding two years, their average commercial landings (by weight) of that life stage constitute less than 1% of the coastwide commercial landings for that life stage for the same two-year period. States meeting this criterion are exempted from having to adopt commercial and recreational fishery regulations for a particular life stage listed in Section 4 and any fishery dependent monitoring elements for that life-stage listed in Section 3.4.1. Qualification for *de minimis* is determined from state reported landings found in Compliance Reports and the NMFS website.

General PRT Comments

1. The PRT requests that state personnel highlight notable trends in annual reports.
2. Landings, effort, and biological data are needed to complete stock assessments. The PRT continues to express concern over the lack of data available for states to report landings by life stage. States are strongly encouraged to collect biological data from landings.
3. 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. The PRT strongly recommends that all states and jurisdictions continue to implement the young-of-the-year survey.

American Eel Advisory Panel
Meeting Summary
May 10, 2013
Hanover, MD

Attendance/Comments Provided By:

Advisory Panel: John Pedrick (PA), Jimmy Trossbach (MD), William Legg (MD), Mari-Beth DeLucia (TNC), Tim Brush (Normandeau Assoc), Martie Bouw (NC), Patricia Bryant (ME), Bob Evans (MD), Rob Piascinski (DE), and Sam Veach (NJ)

ASMFC and State: Kate Taylor (ASMFC), Genny Nesslage (ASMFC), and Keith Whiteford (MD)

Public: Devon Jones (PB Enterprises) and Barry Kratchman (DE Valley Fish)

1) Election of Chair

- Martie Bouw was elected as Chair without opposition
- Mari-Beth DeLucia was elected as Vice-Chair without opposition

2) American Eel Benchmark Stock Assessment

- Dr. Nesslage presented the results of the stock assessment

3) ESA Update

American eel were petitioned for listing as threatened under the Endangered Species Act (ESA) in April 2010. USFWS published a positive 90 day finding on the petition in September 2011, stating that the petition may be warranted and a status review will be conducted. The organization that initially petitioned to list American eel filed a lawsuit in August 2012 against USFWS for failure to comply with the status of the ESA, which specifies a proposed rule based on the status review be published within one year of the receipt of the petition. A Settlement Agreement was approved by the Court in April 2013. The settlement requires USFWS to publish a 12-month finding by September 30, 2015.

4) Draft Addendum III Management Options and Public Comment Summary

- Kate Taylor presented an overview of the management options contained in Draft Addendum III and a summary of the public comment received.
- 13 public hearings were held in 12 states. Hearings were held in all states except Florida, Pennsylvania, Connecticut, and DC. New York held two hearings. Half of total attendance was at the Maine hearing (~100 people) and approximately 100 people attended the remainder of the hearings.
- Written comment was received by 30 individuals and 31 organizations

Habitat Recommendations

- The AP supports the habitat recommendations contained in the document. In addition, the AP strongly supports the development of a plan to implement these recommendations and a timeframe for completion. The AP strongly supports collaborating with ACFHP, USFWS, NMFS, and other agencies in completing these important goals.

Monitoring

- The AP supports any improvements in monitoring programs. Specifically the AP requests consideration for the Technical Committee (TC) to review the current monitoring program and develop specific recommendations to improve the programs. The AP understands these programs must be statistically rigorous while also maintaining cost effectiveness. The AP requests the TC seek guidance from the AP, where appropriate (e.g. in fisheries independent monitoring site selection).
- The AP supports monthly dealer and harvester reporting submission requirements.

Glass Eel Fishery

- The majority of the AP members were in favor of Option 1 (Status Quo). However, the AP recommends the following additional management options for the Board's consideration:
 - o The AP unanimously recommends that the Board consider that if a state is allowed to maintain a glass eel fishery, then that state must conduct a complete life cycle survey for eels. The implementation of a complete life cycle survey is one of the highest priority recommendations of the Stock Assessment Subcommittee and TC.
 - o The AP unanimously recommends that the Board consider requiring real time reporting for all glass eel fisheries for harvesters and dealers.
 - o The AP 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.
 - o The AP unanimously recommends that the Board consider prohibition on harvest directed on multiple life stages (i.e. states that have a glass eel fishery should prohibit fishing on any other life stages).
- A minority of the AP was in favor of increased conservation efforts such as a quota system. One member was in favor of Option 2 (Closure), Sub-Option 2 (Phased out closure).
- Additionally, the AP supported re-evaluation of any management changes after the next stock assessment (anticipated 2017).

Yellow Eel Fishery

- The AP unanimously supported Option 2 (Minimum Size).
 - o Specifically the AP supports an 8 inch minimum size restriction through 1/2 by 1/2 inch mesh requirements.
 - The use of 1/2 by 1/2 inch mesh will possibly result in a higher minimum than 8 inches, as the catch would likely be between 8 to 10 inches.
 - o Two members not in attendance provided comments, that if management action was needed, in support of Option 3 (Mesh Requirements), Sub-Option 2 (1/2 by 3/4 inch).
 - o The AP recommends that the Board consider allowing implementation of this regulation through the use of an escape panel for a specified time frame (AP recommends 3 years), after which time the gear must be phased out to meet mesh requirement.
 - o The AP also recommends that those states which have more conservative mesh requirements should be required to maintain them.
 - o The AP supports increased enforcement of existing mesh requirements

- The majority of AP was in opposition of the quota, with one member in favor (based on the base years 1990 – 2011).
- There was unanimous opposition to the two week fall closure.
- Additionally, the AP recommends that the Board re-consider limited entry and options to reduce latent effort. These actions may also promote more accurate harvest reporting.

Silver Eel Fishery

- The AP unanimously supported Option 2 (Gear Restrictions). However, the AP supported an 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

- The AP unanimously supported Option 2 (25 fish per day per angler bag limit), which includes passengers/crew on party/charter boats.
- The AP supports implementation of the same minimum size for both commercial and recreational fisheries in order to aide in enforcement efforts.

**Draft Addendum III to the
Interstate Fishery Management Plan for American Eel**

PUBLIC HEARING SUMMARIES

<u>Date</u>	<u>Location</u>
April 11, 2013	Dover, DE
April 15, 2013	Portsmouth, NH
April 18, 2013	Annapolis, MD
April 22, 2013	East Setauket, NY
April 22, 2013	Bourne, MA
April 24, 2013	Washington, NC
April 25, 2013	Colonial Beach, VA
April 25, 2013	Port Jervis, NY
April 29, 2013	Richmond Hill, GA
April 30, 2013	Moncks Corner, SC
April 30, 2013	Augusta, ME
May 1, 2013	Narragansett, RI
May 2, 2013	Galloway, NJ

May 2013

Delaware

*Delaware Department of Natural Resources and Environmental Control
Richardson and Robbins Building Auditorium
Dover, Delaware*

Public Attendance: See sign-in sheet

State and ASMFC Personnel:

Kate Taylor, ASMFC

John Clark, DNREC

Summary

Four comments were in opposition to a quota system and three people were opposed to the two week fall closure in the yellow eel fishery. Comments were divided on the remainder of the yellow eel fisheries management measures and included support for the status quo, opposition to a size limit, and support for gear restrictions (the use of $\frac{1}{2}$ by $\frac{3}{4}$ if gear restrictions were enacted, as these would be the least onerous). Two fishermen commented that there is no silver eel fishery in Delaware so they support the measures to reduce mortality on silver eels. General comments included that there is too much uncertainty in the stock assessment; more data is needed before management action is taken; the population is stable and increasing; demand is decreasing; efforts need to focus on habitat improvements, dam removal and fish passage; and there needs to be better socioeconomic information on the impact of the proposed regulations.

Commercial Management Measures

Glass Eel Fisheries

Option 5 – Pigmented Eel Tolerance

- One person commented that fishers in Maine primarily supported a pigmented eel tolerance since a pigmented eel has better survival than a glass eel because mortality on glass eels is high (99.9%). Industry would favor preventing a pigmented eel fishery from developing.

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- Two members of the public supported the status quo

Option 2 – Size Limits

- Two fishermen were not in favor of regulating eels through a size limit. Comments provided included that measuring an eel is a nightmare and that management through gear restrictions would make more sense.

Option 3 – Gear Restrictions

- One fisherman commented that he had never had a problem with undersized eels in his pots.

Sub-Option 3b

- One fishermen and one industry representative supported the use of $\frac{1}{2}$ by $\frac{3}{4}$, if gear restrictions were enacted, as these would be the least onerous.

Option 4 – Quota

- Three fishermen and one industry representative were not in favor of managing the fishery through a quota allocation.

Option 5 – Monitoring

- One fisherman commented that harvesters already report in a timely manner. Another fisherman commented that an increase in reporting is burdensome and people would leave the fishery.

Option 6 – Time Restrictions

- Three people were opposed to the proposed time restrictions for pots and traps. Comments included that this would cause a huge reduction in Delaware's harvest, that this unfairly targets Delaware fishermen, and that a cut of this magnitude is not necessary.

Silver Eel Fisheries Measures

Option 2 – Time Closures

- Two fishermen commented that there is no silver eel fishery in Delaware so they support the measures to reduce mortality on silver eels.

Recreational Management Measures

- No Comments Given

Habitat, Monitoring and General Comments

- Eel has a unique life history which dictates that it is managed differently than other species.
- Better data is needed before management action is taken / there is too much uncertainty
- The population is stable and increasing.
- Demand is decreasing
- Need to focus on habitat improvements, dam removal and fish passage
- There needs to be better socioeconomic information on the impact of the proposed regulations.
- We should consider withdrawing from ASMFC
- There needs to be better representation by DE ASMFC Board members

New Hampshire
*Urban Forestry Center
45 Elwyn Center
Portsmouth, New Hampshire*

Public Attendance: 4 members of the public. See sign in sheet for details.

State and ASMFC Personnel:

Mike Waine, ASMFC

Doug Grout, NH F&G

Dennis Abbott, Commissioner

Commercial Management Measures

Glass Eel Fisheries

Option 2 – Closure

- Two people commented in favor of the immediate closure of the glass eel fishery.

General

- One person commented that it makes sense to have all states with the same regulation
- Two people commented that the high price of glass eels will lead to poaching

Yellow Eel Fisheries Measures

Option 6 – Time Restrictions

- One person commented in favor of a closure from July through December in order to protect the outmigrating eels.

Silver Eel Fisheries Measures

Option 2 – Gear Restrictions

- Two people person commented in favor of the gear restrictions

General

- One person commented in favor of closing silver eel fisheries year round

Recreational Management Measures

Option 2 – 25 Fish Bag Limit

- One person commented in favor of reducing the bag limit in order to give back to the resource.

General

- One person was in favor of a complete closure or allowing only hand lining for eels.

Habitat, Monitoring and General Comments

- One person commented that the poor water quality is the reason for the low abundance of eels.
- One person commented that, if science suggests otherwise, in the future things can be changed but as of now this makes the most sense to do something with a depleted stock.

Maryland

*Maryland Department of Natural Resources
580 Taylor Avenue
Annapolis, Maryland*

Public Attendance: 28 members of the public. See sign-in sheet for details.

State and ASMFC Personnel:

Kate Taylor, ASMFC
Keith Whiteford, MD DNR
Russell Dize, ASMFC Commissioner

Summary

There was unanimous opposition to implementation of a quota, increased (daily) monitoring, and a two week closure for the yellow eel fishery. Multiple comments in favor, opposed, and suggested alternatives were given on mesh restrictions. Maryland is currently at a 25 fish per day bag limit and comments to regulate other states recreational fishery were not provided.

Commercial Management Measures

Glass Eel Fisheries

- One person commented that seasonal closures should be included.

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- 6 people in attendance were in favor of the status quo.
- One person commented that maintaining the status quo might not be enough

Option 2 – Size Limits

- If a minimum size limit was imposed, 22 were in favor of an 8 inch size limit since the State of Maryland already does not catch eels under 8 inch under the current mesh restriction ($\frac{1}{2}$ by $\frac{1}{2}$ inch).
- One person opposed imposing an 8 inch size limit because MD DNR could not be trusted to further restrict the fishery.

Option 3 – Gear Restrictions

- One person commented that changing the mesh size would greatly impact the fishermen.
- One person commented that $\frac{1}{2}$ by $\frac{3}{4}$ inch mesh requirement would still present a viable fishery and keep the bait industry going.
- One person commented that $\frac{1}{2}$ by $\frac{5}{8}$ would be more preferable
- One person was opposed to a $\frac{1}{2}$ by 1 inch mesh requirement due to the large bait fishery in Maryland
- One person was in favor (in order of preference) a $\frac{1}{2}$ by $\frac{1}{2}$ inch requirement, a $\frac{1}{2}$ by $\frac{3}{4}$ inch mesh requirement, and then a $\frac{1}{2}$ by 1 inch mesh requirement.

Option 4 – Quota

- 28 people were opposed to implementing a quota

Option 5 – Monitoring

- 28 people were not in favor of implementing a trip ticket requirement.

Option 6 – Time Restrictions

- 28 people were not in favor of a two week closure.
- Two people commented that if a seasonal closure was implemented it would need to be at the end of the season as it would be too cumbersome to take gear out in the middle of the season..
- Mesh restrictions would be preferable to a two week closure.

Silver Eel Fisheries Measures

- One person commented that we should be doing all we can to protect the silver eels.

Recreational Management Measures

- Maryland is already at 25 fish bag limit.

Habitat, Monitoring and General Comments

- Two people commented that there needs to be a greater focus on access to habitat and that trap and transport should be promoted.
- One person commented that restocking should be considered like they do in Europe. This would allow for conservation without shutting down the fishery.

American Eel Draft Addendum III Public Hearing
Atlantic States Marine Fisheries Commission

Annapolis, Maryland
 April 18, 2013
 6 PM

- Please Sign In -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
John Ashton		Fishing Creek Md
Dean Price		Woolford Md
Stephen Hubbard		Camb Md
Mill Rejouis		Cambridge Md.
Mike Blackstone	MWA	Annapolis, MD
Reid Franklin		Newburg MD
Thurs Chappellear		Benedict MD.
Steve Lay		Howe de Grace Md.
Tim Marks		Howe de Grace Md.
Robert J. Brown	MWA	Avenue, MD
Richard Young	Coves de Crabs/TFAC	Dundalk MD
Billy Adams II		St. Michaels MD
E. Jones		
Bert Lewis		ORR Sonv, LNR
Burl Lewis		Camd. Edge, md
Victoria Brown		St Mary's
Doug Hartley	DUF (American Eel Society)	Phila PA
Susan Krauth		Pasadena MD 21122
Jeff Anthony	Maryland Watermen	Kent Island (ITD)
Nick Cook	MD Watermen	Kent Island
Tommy Lednum	MD waterman	Tilghman Md.
Russell Dize	A.S.M.F.C.	Tilghman I md.
Jim Ruth		Kent Island Md
Troy Wilkins		Kent Island Md
Ronnie Benton		Kent Island, Md.
Ian Honney		Kent Island Md
Moochie Culdea	MWA.	Stevensville Md.
Bill Leary	Fisherman	Crabonville Md
Kim Huntickel		PA

New York

*New York Department of Environmental Conservation
Bureau of Marine Resources Headquarters
East Setauket, NY*

Public Attendance: 14 members of the public. See sign in sheet for details.

State and ASMFC Personnel:

Kate Taylor, ASMFC
Steve Heins, Commissioner (proxy)
Pat Augustine, Commissioner

Summary

There was unanimous opposition to implementation of a quota in the yellow eel fishery. Comments in opposition were because there is not enough accurate landings information to determine allocation and fishermen could be holding eels when the fishery closes. There was unanimous opposition to a two week fall closure in the yellow eel fishery as the fall fishery is very short and weather dependant. The majority of people were in favor of 1 by ½ inch mesh requirement for the yellow eel fishery as that is currently in place in New York.

Commercial Management Measures

Glass Eel Fisheries

Option 2 – Closure

- One person was in favor of the glass eel fishery closure.
- One person commented that with two states allowing a glass eel fishery it leaves the door open for the black market.
- One person commented that New York fishermen should not be deciding on fisheries in Maine.

Option 5 – Pigmented Eel Tolerance

- One person commented that allowing pigmented eels to be caught justifies the glass eel fishery.

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- One person was in favor of the status quo.

Option 2 – Size Limits

- Two people were fine with implementing an 8 inch minimum size requirement.
- One person commented that it is too difficult to measure eels.

Option 3 – Gear Restrictions

- 11 people were in favor of 1 by ½ inch mesh requirement as that is currently in place in New York.

Option 4 – Quota

- There was unanimous opposition to implementing a quota.

- One person commented that there was not enough information to determine the allocation
- One person questioned what would happen if a fisherman was holding eels but the fishery closed due to reaching the quota

Option 5 – Monitoring

- One person commented that this is already a requirement for New York fishermen, but that it may not work for North Carolina or other states and that's fine just as long as their reporting is accurate and fair.
- Two people were in favor of increased reporting as timely reporting would provide more accurate data.
- One person commented that we don't want something similar to Menhaden.

Option 6 – Time Restrictions

- There was unanimous opposition to a two week fall closure.
- One person commented that the same pots catch multiple species.
- Three people commented that the fall fishery is very short and a two week closure could wipe out the fishery because you only really get 2 – 8 fishable days.

Silver Eel Fisheries Measures

Option 2 – Time Closures (General)

- Two people commented that this would be difficult to enforce
- Two people commented that there used to be so many more pound nets and weirs fishing but now it's really small.
- One person commented that there is a substantial weir fishery in the Delaware River and they are very effective at catching eels.

Recreational Management Measures

Option 2 – 25 Fish Bag Limit

- One person commented in favor of the reduced bag limit and that 25 should be enough for anyone.

Option 3 – Party/Charter Exemption

- One person was in favor of the exemption
- One person commented, on behalf of the North Fork Captains Association, in favor of implementing the 25 fish bag limit, but that there should be an allowance for 10 to 15 eels per person on a charter boat.

Habitat, Monitoring and General Comments

- Two people commented that typical fish passage devices do not move eels as effectively as other species and we need more eel specific passage improvements.
- We need to improve eelgrass habitat in order to restore eel populations.
- We need to focus on improving water quality.
- One person commented that it's the part time fishermen that are less invested in the health of the fishery and less likely to report.



BUREAU OF MARINE RESOURCES



MEETING:

ASMEC Eel Addendum III

DATE:

4/22/13

NAME	ORGANIZATION	TELEPHONE/FAX	E-MAIL ADDRESS
Charles K. Madon		631-356-3552	
Richard Hunter		347-836-5382	
Tom Kuhner		631-582-3982	
Alire Fogal		516-528-4903	RESTLESSFISHERRIES@gmail.com
Mile Alessi		516-312-8219	
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Ed Chiofalo		631-987-9478	
Tim Reilly		631-654-1767	OPTIM@35yoko.com
Tim O'Brien			Ropeburn105@aol.com
John Buczek		659-9189	
Bill Ferrer			AnnDuckemul@aol.com
Don Ward		516-518-2345	

Massachusetts

*Massachusetts Division of Marine Fisheries
Bourne Public Library Meeting Room
Bourne, Massachusetts*

Public Attendance:

14 public in attendance. See sign-in sheet for details.

State and ASMFC Personnel:

Dan McKiernan, DMF Deputy Director
Brad Chase, DMF Senior Fisheries Biologist

Summary

Much of the discussion and comments were focused on the depleted state of the stock in local Massachusetts waters. In Massachusetts, the municipalities authorize eel potting in local waters. Due to the obvious decline in abundance, the municipal officials all supported stronger conservation measures, including a moratorium on elver fishing throughout the range. This position was supported by members of the tribe as well. There were many complaints about insufficient fines resulting in a lack of deterrent to poaching.

Commercial Management Measures

Glass Eel Fisheries

Option 5 – Pigmented Eel Tolerance

Mitch Feigenbaum and others who discussed the issue supported limits on the allowed amount of pigmented eels in the glass eel fishery catches to prevent growing markets for very small eels.

Yellow Eel Fisheries Measures

Option 2 – Size Limits

There was general support for increasing the minimum eel size to 10” or 11”.

Option 3 – Gear Restrictions

There was general support for increasing the mesh size of eel pots

Option 4 – Quota

There was support among the municipal officials and tribe members for the lowest quota option to help recover the stock

Option 6 – Time Restrictions

There was no support for this measure if there was not adequate enforcement to ensure compliance.

Silver Eel Fisheries Measures

Option 2 – Time Closures

Members of the tribe suggested spear fishing be allowed. Their traditional fall fishing activity includes eel spearing; they contend that spear fishing for commercial sale should be an option in addition to personal use.

Recreational Management Measures

Option 2 – 25 Fish Bag Limit

There was support for the proposed decrease from 50 to 25 fish.

Habitat, Monitoring and General Comments

One person discussed his personal views of the stock assessment and suggested the abundance of eels in certain drainage systems is not as dire as some have suggested and that much of the decline in harvest may be attributable to declining demand.

North Carolina

*North Carolina Division of Marine Fisheries
943 Washington Square Mall
Washington, North Carolina*

Public Attendance: 11 members of the public. See sign-in sheet for details.

State and ASMFC Personnel:

Kate Taylor, ASMFC
5 NC DMF staff
1 NC Marine Patrol Officer

Summary

There was general opposition to a quota or two week fall closure in the yellow eel fishery. The majority of people were in favor of the 1 by ½ inch mesh or escape panel requirement. There were many comments provided on the need for better water quality as well as habitat improvements.

Commercial Management Measures

Glass Eel Fisheries

Option 1 – Status Quo

- Two people were in favor of allowing the glass eel fishery if that was the only life stage they were allowed to fish on.

Option 2 – Closure

- One person was in favor of a closure and that you need to have the little ones to get the big ones.

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- One person was in favor of maintaining the status quo.

Option 2 – Size Limits

- One comment was given that if a minimum size was implemented it would need to be in conjunction with gear restrictions

Option 3 – Gear Restrictions

- 7 people were in favor of the 1 by ½ inch mesh or escape panel requirement.
- One comment was given that the current regulations in North Carolina only require fishermen to have cull panels, not that they need to be unobstructed.

Option 4 – Quota

- There was general agreement in opposition of a quota system. Most commented that states with smaller mesh sizes are landings more eels, so therefore a quota based on past landings would not be equitable since North Carolina has stricter mesh requirements.

Option 5 – Monitoring

- One person commented that states should be collecting the same data and moving from eel logbooks to a trip ticket system.
- One person was not in favor of trip level reporting as it would only be necessary if a quota was implemented.

Option 6 – Time Restrictions

- There was a consensus that if a certain two week period was chosen it could be the peak of the fishery (due to environmental variables) and this option could essentially shut the fall fishery down. Additionally, the two week period could be different for the different bodies of water within North Carolina. Also, a two week closure would essentially be longer as a result of having to get gear in and out of the water and trying to locate the eels once you put the gear back in.

Silver Eel Fisheries Measures

Option 1 – Status Quo

- One person was in favor of the status quo.

Option 2 – Time Closures

- Comments were provided that this wouldn't impact North Carolina fishermen because they don't fish for silver eels, that this would affect the northern states more, and that it could be a way to reduce mortality.

Recreational Management Measures

Option 1 – Status Quo

- One person was in favor of the status quo.

Habitat, Monitoring and General Comments

- There were many comments provided on the need for better water quality and habitat improvements. One person stated that a lot more attention needs to be paid to improving water quality in North Carolina and monitoring water quality conditions, and additionally, the open pit mining operations and agriculture extractions were of particular concern. One person expressed concern over the impact of the swim bladder parasite as well as other diseases that may come from poor water quality.
- One person commented that the amount of fishing pressure is low compared to what it used to be. There used to be 50 eelers and now there are only 15 or 20.
- One person commented that all the inland waters in North Carolina are closed and North Carolina is going a lot to protect eels.

**SIGN UP SHEET
NCDENR-WASHINGTON REGIONAL OFFICE**

Workshop/Event: ASMFC - Eel Addendum III Public Comment

Date: 4/24/2013; Time 6:00PM

Name	Agency	Phone	Email
Steve Mogen		944-3415	
Jack Spruill	Citizen	910 599 5640	jspruill@spruillfarm.org
Doug Huntley	Delaware Valley Fish	609 922-0900	d@F-LLC.com
Kim Huntley			
Shannon Latham	Com. fish	252 945-2899	
Alton Packer	Com. Fish	252-943-1861	—
Katy West	NC DMF	252-948-3874	K.Ly.West@ncdenr.gov
Jason Rock	NCDMF	252-948-3875	Jason.Rock@ncdenr.gov
Sgt. Odell Williams	NC Marine Patrol	252-945-4275	
Brian Foster	Com. Fish	252-336-2577	Brian@EDGEWATERGLIDE.com
Bill Wright	Com. Fisherm.	252-207-1948	crabbin'dollar-bill@yaho.com
Casey Knight	NCDMF		Casey.Knight@ncdenr.gov
Butch Australian	Com. Fish		BK@BVU-FISH.com
Alton Spain	Confial	229-3155	
Marie Boww	dealer	249-1242	

Virginia
Potomac River Fisheries Commission
222 Taylor Street
Colonial Beach, Virginia

Public Attendance: 10 members of the public. See sign-in sheet for details.

State and ASMFC Personnel:

Kate Taylor, ASMFC
Ellen Cosby, PRFC

Summary

Those that were in favor of maintaining the status quo in the glass and yellow eel fisheries commented that this was the most appropriate action as there was not enough certainty in the data to trigger management changes. The majority of people were in favor of implementing the monitoring requirements that are currently in place in the Potomac River. There was unanimous support of the silver eel time closures. There was unanimous support for the status quo in the recreational fishery.

Commercial Management Measures

Glass Eel Fisheries

Option 1 – Status Quo

- Two people were in favor of maintaining the status quo, as there was not enough information in the stock assessment.

Option 3 – Quota

- One person was in favor of a quota system as harvest in other states is bound to impact other fishermen, but did recognize that it is an important fishery for the Maine fishermen.

Option 4 – Reporting Requirements

- One person was in favor of improving reporting requirements if the amount of harvest continues.

Option 5 – Pigmented Eel Tolerance

- One person was in favor of the pigmented eel tolerance as limiting mortality in a couple of life stages could increase biomass.

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- 5 people were in favor of maintaining the status quo due to a lack of information.

Option 3 – Gear Restrictions

- One person was opposed to increasing the mesh size requirements as PRFC currently requires ½ by ½

Option 4 – Quota

- One person commented in opposition of a quota for the yellow eel fishery.

Option 5 – Monitoring

- 7 people were in favor of increased reporting to match what PRFC currently requires. Reporting requirements by PRFC are very strict and if you don't report you have to go in front of the Commission.
- One person commented that there needs to be better reconciliation between harvester and dealer reporting.

Option 6 – Two Week Fall Closure

- One person commented that there are too many variables to factor into a successful fall season and it is expensive to take the pots out.

Silver Eel Fisheries Measures

Option 2 – Time Closures

- There was unanimous support for the time closures. Comments in support included that the eels had survived their whole life and deserved to be protected and that this would give the eels a higher probability to make it back to the Sargasso Sea to spawn.

Recreational Management Measures

Option 1 – Status Quo

- There was unanimous support for the status quo as this is a small segment of the overall harvest and not that many people catch eels recreationally.

Habitat, Monitoring and General Comments

- One person commented that if eels are killed at younger stage and older stage then it's got to have a terrible effect on the fishery as there will be nothing left to spawn.
- One person commented that you can't make good management decisions without good data to support it.
- Two people commented on the impact of hydropower dams on eels.
- Two people comments on the need to increase access to suitable habitat for eels through fish passage.
- One person supported increased (monthly) monitoring submission in order to get better data to manage the species.

New York

*New York Department of Environmental Conservation
Port Jarvis Free Library
Port Jarvis, New York*

Public Attendance: 6 people were in attendance. See sign in sheet for details.

State and ASMFC Personnel:

Jim Gilmore, NY DEC
Carol Hoffman, NY DEC

Summary

There was unanimous support for the status quo in the silver eel fishery. The time period closure would essentially shut down the entire silver eel fishery and only a minimal amount of eels are harvested. The fishery is very weather dependant. No other specific comments were provided for the glass or yellow eel fishery, although general comments were given that harvest should be reduced on the glass eel and yellow eel fisheries since they harvest so much more.

Commercial Management Measures

Silver Eel Fisheries Measures

Option 2 – Time Closures

- There was unanimous support for the status quo in the silver eel fishery.

Georgia

*Georgia Coastal Resources Division
John W. Stevens Wetlands Education Center
Richmond Hills, Georgia*

Public Attendance:

6 people were in attendance. See sign-in sheet for details.

State and ASMFC Personnel:

Toni Kerns, ASMFC
Jim Page, GA DNR

Commercial Management Measures

Glass Eel Fisheries

Option 5 – Pigmented Eel Tolerance

- One person commented that restrictions against fingerlings seems logical, but the language now is not enforceable.

General

- One person commented that the natural mortality on glass eels is 99% in the summer and that it would make more sense to catch them and raise them up in order to reduce mortality. This would also create jobs.
- One person commented that a glass eel fishery will exist in Georgia regardless due to the price of the glass eels and poaching is on the rise.
- One person commented that there is a benefit to the glass eel fishery.

Yellow Eel Fisheries Measures

Option 2 – Size Limits

- One person commented that increasing the size limit (8 or 9 inches) could be helpful, but that using a combination of mesh size and escape panels is a more practical way of implementation.
- One person commented that an 8 inch size limit would hurt the sushi market, which is typically where the higher price occurs. Bigger eels will get more for the money if there is a good market for it.

Option 4 – Quota

- Two people commented in opposition to the use of a quota for the yellow eel fishery, as quotas are not easily enforced nor, are not fairly allocated, and the 2,000 limit would close the Georgia fishery. Additionally, state reductions could allow for some states to keep smaller eels than others and there is a variation on when eels can be caught.

Option 5 – Monitoring

- One person commented in favor of increased reporting.

Option 6 – Time Restrictions

- One person was opposed to a two week closure, as it would be difficult for the fishermen to pull pots and the catch for the season can occur in just a few weeks.

Silver Eel Fisheries Measures

Option 2 – Time Closures

- One person commented in favor of the time closures as it makes a tremendous amount of sense. Fishing should be allowed only with baited pots and traps.

Recreational Management Measures

Option 1 – Status Quo

- One person commented in favor of the status quo for the recreational fishery.

Habitat, Monitoring and General Comments

- One person stressed the importance of improving habitat quality and increasing habitat quantity in order to have continued growth of eel biomass.
- Two people commented on the impact of dams (specifically turbines) to the health of the population.
- One person commented that if we are not measuring what we are doing then we will not know how we are doing. The reporting requirements would not need to be onerous on the fishermen and dealers to collect good data.
- One person commented that the state of Georgia should not be effected because other states are having a problem and that there is an over abundance of eels in Georgia.
- One person commented that the DBSRA model shows a 41% projected increase in the biomass of eels in the last ten years and that the eel population is not in bad condition.
- One person commented that the price for eels is slowing the Georgia fishery. Landings data are not reflective of the populations; it is not that the eel are not here it's just that fishermen cannot get a good enough price to make it worth going out to fish for eels.

South Carolina

*South Carolina Department of Natural Resources
Santee-Cooper Auditorium
Moncks Corner, South Carolina*

Public Attendance: 20 members of the public. See sign in sheet for details.

State and ASMFC Personnel:

Toni Kerns, ASMFC
5 SC DNR Staff

Summary

The group was in favor of improvements to habitat requirements, as habitat and passage is essential to building the stock. The group noted that South Carolina fishermen already have mandatory reporting. All states should have their fishermen and dealers report harvest. The majority of the group is not in favor to additional restrictions to the glass and yellow eel fisheries. The majority of the group is in favor of time closures for the silver eel fishery. Several people were not in favor of the use of quotas.

Commercial Management Measures

Glass Eel Fisheries

Option 3 – Quota

- One person commented that there needs to be better commercial landings data before a quota is implemented.
- Several people stated that quotas should not be used to manage the eel fishery and found the restriction proposed in the document uncalled for.

General

- One person commented that the natural mortality on glass eels is 99% in the summer and that it would make more sense to catch them and raise them up in order to reduce mortality. This would also create jobs.

Yellow Eel Fisheries Measures

Option 3 – Gear Restrictions

- One person commented that if you change the regulations on gear it is going to cost the fishermen money.

Option 4 – Quota

- One person commented that there needs to be better commercial landings data before a quota is implemented.
- Several people stated that quotas should not be used to manage the eel fishery and found the restriction proposed in the document uncalled for.

Silver Eel Fisheries Measures

Option 2 – Time Closures

- The majority of the group was in favor of the time closures and that only harvest from pots should be allowed.

Recreational Management Measures

- No comments were given

Habitat, Monitoring, and General Comments

- One person stressed the importance of improving habitat quality and increasing habitat quantity in order to have continued growth of eel biomass.
- One person commented on the importance of adequate water quantity and flow.
- One person commented that if we are not measuring what we are doing then we will not know how we are doing. The reporting requirements would not need to be onerous on the fishermen and dealers to collect good data.
- One person commented that the data show eel populations are in good condition
- One person commented on the inadequacy of the data
- One person commented that South Carolina fishermen cannot with the Maine fishermen as their regulations as not as restrictive
- One person commented that South Carolina fishermen are doing a lot to protect eels, as they only fish in one river and do not fish for silver eels

American Eel Draft Addendum III Public Hearing
Atlantic States Marine Fisheries Commission

Moncks Corner, South Carolina
 April 30, 2013 at 6 PM

- Please Sign In -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
Doug Huntley	NOF/American Eel Sustainable Mgmt. Ass.	Moncks Corner SC
Kim Huntley	DeWitt's Vauclay Fish	Norristown PA
Edgar Sathers		Charleston, SC
Kevin Mordway		Bonneton SC
Earl Connor		St Johns SC
John Morrison	Sentee Cooper	Moncks Corner SC
Beck Hamilton		Moncks Corner SC
Hal West	Captain Mary's Seafood	James Island SC
Mark Weihe	Mark Walz	James Island SC
Lynn Keith	SCDK	Wilmington, SC
Chris Martin	Fisherman	Moncks Corners, SC
George Livingston		
Scott Corum		Moncks Corner SC
Chris Leung	Jelf Corp	Edenton, NC
Steve Arndt		Charleston, SC
Karen Kearns	DMG Ranch	McClellanville SC
Malcolm Rhodes	ASMFC	Charleston SC
Terrence Kurant	none	Mt Pleasant SC
Robert Newton	Nature Conservancy	Mt Pleasant SC
Daniel Hightower		Moncks Corner SC

Name

Maine

*Maine Department of Marine Resources
Augusta Armory
Augusta, Maine*

Public Attendance:

111 members of the public. See sign in sheet for details.

State and ASMFC Personnel:

Kate Taylor, ASMFC

Terry Stockwell, ME DMR

Pat Keliher, ME DMR

Rep. Walter Kumiega

Stephen Train

Summary

Despite the high attendance, only approximately 20% of those in attendance submitted public comments. The majority of comments that were given were in favor of maintaining the status quo or not closing the glass eel fishery. This appeared to be the general consensus of those in attendance as well. Very few comments were provided on the commercial silver fishery and the recreational fishery management measures but, those that were, were in favor of closing the silver eel fishery and reducing the bag limit to 25 fish/day/angler. Many of the comments provided discussed the uncertainty in the data and the economic benefit the glass eel fishery provided to the region.

Commercial Management Measures

Glass Eel Fisheries

Option 1 – Status Quo

- One person, on behalf of the Maine Elver Fishery Association, commented in favor of the status quo
- Twelve people were in favor of the status quo.

Option 2 – Closure

- One person commented in favor of the glass eel closure
- Six people commented that there is not enough certainty in the data to warrant closing the fishery and that it would cause an economic hardship to the area

Option 3 – Quota

- One person commented that it would be difficult to incorporate those with dip net licenses into a quota (ITQ) system.

Option 4 – Increased Reporting

- One person, on behalf of the Maine Elver Fishery Association, commented in favor of increased reporting specifically the use of a swipe card to verify license holders.

Option 5 – Pigmented Eel Tolerance

- One person commented in favor of the pigmented eel tolerance.

- One person, on behalf of the Maine Elver Fishery Association, commented in favor of mandatory ¼ inch culling devices to ensure achieving tolerance and aide in law enforcement efforts.

General

- One person commented that restrictions in the glass eel fishery will not make much difference.

Yellow Eel Fisheries Measures

General

- One person commented that the fishermen in Maine don't have a stake in these other fisheries and shouldn't comment on them.

Silver Eel Fisheries Measures

General

- One person, on behalf of the Maine Elver Fishery Association, commented in favor of the complete closure of the Maine silver eel fishery.
- One person commented in favor of the closure of the silver eel fishery in Maine

Recreational Management Measures

Option 2 – 25 Fish Bag Limit

- One person, on behalf of the Maine Elver Fishery Association, commented in favor of the creel limit reduction.
- One person was in favor of the creel limit reduction.

Habitat, Monitoring and General Comments

- Five people commented that there is too much uncertainty in the data.
- Four people commented that catch has been increasing and the population is healthy
- Two people commented that other states should increase the fines for poaching before they consider shutting down the Maine fishery.
- Two people commented in favor of limited entry.
- One person, on behalf of the Maine Elver Fishery Association, commented in favor of increased state flexibility in the development and implementation of regulations, similar to river herring. Additionally there is a need for increased coordination with FERC to stop turbines during peak migrations or increase passage efficiency.
- One person commented that the adult populations are extremely low.
- One person commented in favor of stocking eels to re-establish populations.
- One person commented that the biggest threat to eels is not fishermen but dams and that dam owners should be required to turn off their turbines at night as, while it may be a cost to them, it would not be as much as it would to the Maine fishermen.
- One person commented that something needs to be done before eels are listed as endangered.

American Eel Draft Addendum III Public Hearing

Atlantic States Marine Fisheries Commission

Augusta, Maine

April 30, 2013 at 1 PM

- Please Sign In and Print Clearly -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
Donald Boyington	Fisherman	Waldoboro Me
Timothy LaRochette	Fisherman	Woolwich
DAVE KENNEY	FISHERMAN	Thomaston
Merton Hansen	Fisherman	Verona Island
Timothy	Fisherman	Orland, ME
Dem Miller	buyer	Nobleboro
Dave Johnson		WALDOBORO, ME
LYLE MORRIS	FISHERMAN	TENANTS HBR ME
FRANK MORRIS	FISHERMAN	TENANTS HBR ME
JUNE MORRIS	FISHERMAN	TENANTS HBR ME
Adam Dragon	Fisherman	Ellsworth, Maine
CHARLES SMITH	FISHERMAN	SPRUCE HEAD ME
Jessica Carol	Fisherman	Ellsworth, Maine
Patricia Bryant	Fisherman/dealer	Nobleboro
Paul Leach	Fisherman	Waldoboro
Anna Brown	Fisherman	Blue Hill
Barry Snow	Fisherman	Blue Hill
James Jewell	Fisherman	Warren
Karl Gammay	U	U
Stephen Arnold	HDR	Portland, ME
CARL J. Solberg	CITIZEN	WALDOBORO, ME
Dave Sprague	Downeast Solutions	NEWCASTLE, ME
Richard Sillibay	Micmac Band	LITTLETON, ME
Kelsey Sprague	Fisherman	Wiscasset, ME
Paul Griffin Jr	Fisherman	Waldoboro ME
John Sullivan	Fisherman	Woolwich, ME
Mitchell Ferguson	dealer - DUF - AUSA	Portland, ME

American Eel Draft Addendum III Public Hearing

Atlantic States Marine Fisheries Commission

Augusta, Maine

April 30, 2013 at 1 PM

- Please Sign In and Print Clearly -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
Jeff CLARK	Self	ELLSWORTH, ME
ALEXIS ROBERTS	Self	ELLSWORTH ME
DONATO RIZZA	SELF	PITTSFIELD, ME.
Angela YOUNG	SELF (Harvester)	WALTHAM, ME
Darrell YOUNG	SELF (Harvester)	WALTHAM, ME
Rick/Kelley	Self (Harvester)	ELLSWORTH, ME
Shaun Glidden	Self	Rox. Litchfield
Joseph McDonald	self	Jonesport, ME
Debbie Johnson	Self	Trenton, ME
LANCE Geidel	SELF	NORRIDGEWOCK, ME.
Shelly Geidel	SELF	NORRIDGEWOCK, ME.
STAN GRIFFIN	SELF	UNION MAINE
Russell Carter Jr	SELF	Windsor ME
ANNETTE Candage	Self	Blue Hill, ME
JOHN Candage	Self	Blue Hill, ME
Gregory Braden	Self	Waldoboro ME
TRANS CARTER	SELF	WALDOBORO, ME
EUGENE CARTER	self	BRISTOL ME 04539
Ben Kolsing	Self	W. Gard. 04539
Marvin Farrin	Self	Bristol, ME
Suzanne M Smith	self	Bristol Maine 04539
John W. Taylor	Self	Newcastle ME 04553
Paul Johnson	Self	Waldoboro ME 04572
Marilyn Dodge	Self	Hope ME 04847
Daniel Dodge	Self	Hope ME 04847
Velton L Alley Jr	self	Jonesport ME 04641
William Milliken	self	Jonesport
Stephen Staples	self	Hallowell

American Eel Draft Addendum III Public Hearing

Atlantic States Marine Fisheries Commission

Augusta, Maine

April 30, 2013 at 1 PM

- Please Sign In and Print Clearly -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
Scot W Winchenbach	SELF	Waldoboro, Me.
Chris Rector	Sen. Angus King	Thomaston, ME
Kyle Molton	Congresswoman Chellie Pingree	Portland, ME
Rep. Walter Kumiega	Legislature / ASMFC	commissioner Deer Isle ME
Robert Wote	ME DNR	West Boothbay Harbor, ME
Keith Bouchard	SELF	135 LUNT Rd Bowdoin Me. 04301
Bob Sprague	SELF	22 tufton St Brunswick
Bob Grafton	SELF	Sedgwick, Maine
Ted Robinson	Commercial Fisherman	York ME
WINDOL WEAVER	REP (MARINE RESOURCES)	BANGOR, ME
BILL TROTTER	BANGOR DAILY NEWS	TRENTON ME
LRSIM RANCE	SELF	Waldoboro ME
Lester Felt's	SELF	BATH, MAINE
FRED CICHOCKI	SELF	Pleasant Pt. ME
Newell Lewey	Passamaquoddy Tribe	INDIAN TOWNSHIP, ME
Leslie Nicholas SR	Passamaquoddy Tribe	Trenton ME
Kenneth Sprague	Bp / Sprague Lobster Bait	

American Eel Draft Addendum III Public Hearing

Atlantic States Marine Fisheries Commission

Augusta, Maine

April 30, 2013 at 1 PM

- Please Sign In and Print Clearly -

<u>Name</u>	<u>Company/Organization</u>	<u>City, State</u>
Mettie Whipple	Eel River Watersted Assoc.	Plymouth, ME
JRA Simmon	DFC	South China ME
Kristine Simmons	DFC	South China, Me.
Harvey Curtis	"	Warren Me
William B Stokes		Raymond Me.
Tamara Parker		Columbia, ME
Jeff Taylor	Citizen	Rowley Me
Brenda Taylor	Citizen	Rowley Me
Julie Keene	Elver fisherman	Trescott, ME
Dottie Davis	elver fisherman	Machias Me
Angel Bushey	Bushey Enterprises/fisherman	Sturben, me
Cress Den S	Citizen	Columbia, me
Anthony Chapman	citizen	Pittston, me
Lucas Wolba	" "	Harrington, ME
Robert Stanley	elver fisherman	Gouldsboro, me
Brenda Rizzo	elver Dipper	Pittsfield Me
Logan A. Kenna	elver fisherman	Franklin, ME
Whitney Ranco	Elver fisherman	Franklin, ME
Kevin White	Elver fisherman	Richmond ME
Richard Lewensaler Jr.	Elver fisherman	Nobleboro, ME.
Braden Alky	Self	Sonesport Me.
William Johnson	ELVER FISHERMAN	Trenton Me
Abden Simmons	Elven FISHERMAN	Waldoboro, ME
Arnold Nickerson	Hayley Maritime	Arnold, Me
Margaret (Reggie) Kenney	Elver fisherwoman	Warren, ME
Robert C. Barter	Elver fisherman	Waldoboro
Leon Wallace	Leon Wallace	Hope
Steve Tarr	ASMF-C	Long Is Me

Rhode Island

*Rhode Island Division of Fish and Wildlife
URI Narragansett Bay Campus, Corless Auditorium
Narragansett, Rhode Island*

Public Attendance:

13 members of the public were in attendance. See the sign-in sheet for more details.

State and ASMFC Personnel:

Jason McNamee, RI DFW

Phil Edwards, RI DFW

Summary

Two people were in favor of the glass eel quota. Comments were given in support of each of the yellow eel fisheries management options, with the exception of the status quo. For the recreational fishery, one comment was given each in support of the status quo, decreasing the creel limit, and for allowing the party/charter boat exemption. Two people requested clarification on the difference between possession and harvest.

Commercial Management Measures

Glass Eel Fisheries

Option 3 – Quota

- Two people were in favor of the glass eel quota, specifically the 50% harvest reduction.

Yellow Eel Fisheries Measures

Option 2 – Size Limits

- Two people were in favor of increasing the minimum size, specifically to 8 inches.
- One person, on behalf of the RI Salt Water Anglers, was in support of increasing the minimum size.
- One person was opposed to any increase in minimum size as it could impact eel farming efforts.

Option 3 – Gear Restrictions

- One person, on behalf of the RI Salt Water Anglers, was in support of 1 by ½ minimum mesh size requirements.
- One person was in favor of gear restrictions in the yellow eel fishery.

Option 4 – Quota

- One person, on behalf of the RI Salt Water Anglers, was in support of a coastwide quota with harvest reduction. No specific base years or reduction was provided.

Option 5 – Monitoring

- One person, on behalf of the RI Salt Water Anglers, was in support of increased monitoring requirements.

Option 6 – Two week fall closure

- Two people commented in favor of the seasonal closure.

Recreational Management Measures

Option 1 – Status Quo

- One person was in favor of maintaining the 50 fish creel limit

Option 2 – 25 Fish Bag Limit

- One person was opposed to reducing the creel limit to 25 fish/day
- One person commented in favor of the reduced creel limit

Option 3 – Party/Charter Exemption

- One person was in favor of allowing the exemption
- Two people requested clarification on the difference between possession and harvest

Habitat, Monitoring and General Comments

- One person commented in support of slot limits and the release of silver eels in the net fisheries.
- One person stated concern over the American eel disease which affects the swim bladder.
- One person commented that over the years a decrease in eels was related to an increase in striped bass and seals, and a lack of eel grass.
- One comment was made encouraging the future farming of eels along the US coast. Other parts of the world are benefiting from eel farming.
- One comment was made voicing concern over the Canadian fishing pressure and hydroelectric impacts on American eel.
- One comment was made that two states were benefiting from a glass eel fishery while others were not.

**Draft Addendum III to the
Interstate Fishery Management Plan for American Eel**

WRITTEN COMMENT SUMMARIES

**Prepared for Consideration of the
American Eel Management Board
May 21, 2013**

Written Comment Summary on the American Eel Draft Addendum II

In total, 31 individual written comment letters were received and 31 comments were received by groups or organizations.

Individual Comments

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.

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

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.

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.

The majority of comments received in favor of the status quo were due to the uncertainty in the stock assessment, that the stock is stable/healthy, and there is a need for more data before management action is taken. The majority of general comments were in support of improving habitat and increasing eel 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. Other comments stated concern for poaching, that states need flexibility in implementing management programs, the need for increased stocking, implementing limited entry, and the impact that decreased availability of horseshoe crabs for bait has on catch.

Group/Organization Comments

Slightly more than half (18) of the group/organization comments received were in favor of a glass eel closure. Six comments were in favor of implementing a quota, with various recommendations of which quota to implement. Four comments were in favor of increased reporting (trip ticket) in the glass eel fishery. Three comments were received each in support of maintaining the status quo or the pigmented eel tolerance.

Eight comments were received in support of increasing the minimum size, although recommendations ranged from support for a general increase or specifically an 8, 9, 10, or 11 inch minimum size. Seven comments were received in favor of maintaining the status quo in the yellow eel fishery. Seven comments were received in favor of mesh requirements, with recommendations for 1 x ½ inch (4), ½ x ¾ (2), and ½ x ½ (1). Six comments were in favor of increased (trip level) reporting, with two comments received

that this is already the current requirement in their state. Five comments were received in support of a two week fall closure and five comments were received in opposition to a two week fall closure. Four comments were in support of implementation of a quota system, with multiple recommendations for allocation, and three comments were opposed to implementation of a quota system.

Eight comments were received in support of increased silver eel restrictions or time closures as this life stage need the greatest protection. Five comments were received in favor of maintaining the status quo for the silver eel fishery. One comment supported closing the silver eel fishery and one commented requested that a limited number of licenses be allowed for a limited amount of time.

Eight comments were in support of reducing the creel limit in the recreational fishery to 25 fish/day/angler, with one comment received that stated that that all anglers on party/charter boats, including crew/captain, should be subject to the same limit. Seven comments received were in support of maintaining the status quo in the recreational fishery. One comment was received in support of the exemption and one comment was received in opposition of the exemption.

The majority of general comments stated that eel populations are in decline / concerned about depletion, stated that there is a need to improve habitat and fish passage, or discussed poaching, specially that poaching endangers the populations, is of a concern, or is reducing/impacting other conservation efforts. Seven comments mentioned concern for a possible ESA listing and six comments stated that American eel have an important ecological value. Four comments commended law enforcement efforts cannot believed law enforcement officials cannot be expected to do more. Four comments were in support on increasing conservation efforts and three comments were in support of more monitoring / a complete life cycle survey. Additional comments received included that eel biomass is increasing, there is a reduction in the number of fishermen and effort, there needs to be flexibility in management measures for the states and that more data is needed before action is taken.

Individual Comments

Commercial Management Measures

Glass Eel Fisheries

Option 1 – Status Quo

- Three comments were in support of status quo

Option 2 – Closure

- 19 comments were in support of closure, 3 specified an immediate closure and 2 specified a five year phase out

Option 3 – Quota

- One comment was in favor and three comments were opposed to the use of quotas

Option 5 – Pigmented Eel Tolerance

- One in support of the pigmented eel tolerance, specifically the use a 14 inch open water culling device to insure no pigmented eels are taken

General

- Even if limited glass eel fisheries were to be allowed, there would need to be stiff fines to discourage poaching.
- Glass eel mortality is very high
- Only dip netting should be allowed

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- One comment in support and one comment was opposition of the status quo

Option 2 – Size Limits

- One comment opposed, any change in minimum size will severely affect the bait business

Option 3 – Gear Restrictions

- Two comments were opposed, any change in mesh size will severely affect the bait business

Option 4 – Quota

- Five comments were in support of specifically harvest reductions but no base year or reduction percentage was given.
- One comment stated that a coastwide quota would favor certain states and not be equitable

Option 5 – Monitoring

- Two comments were in favor of increased reporting

Option 6 – Time Restrictions

- One comment was in opposition of a two week closure

General

- Two people were in support of a closure of the yellow eel fisheries to help the stock recover

Silver Eel Fisheries Measures

Option 1 – Status Quo

- One in support of the status quo

Option 2 – Time Closures

- 9 comments were in support of the time closures
- One comment was in opposition as a seasonal closure would put the fishery out of business and that there are few weir fishermen on the Delaware River compared to 10 or 20 years ago

General

- Three people were in support of a closure of the silver eel fishery to help the stock recover, with one specific commenting stating it should be for least for a period of years long enough to assess whether populations are increasing as a result

Recreational Management Measures

Option 2 – 25 Fish Bag Limit

- 8 people in support of a reduced creel limit

Option 3 – Party/Charter Exemption

- One person commented that party and charter boats should be allowed 25 eels per passenger, including crew and captain.

Habitat, Monitoring and General Comments

- Seven people commented that more safe and efficient passage is needed at dams
- Five people commented that the stock is not depleted or is healthier than the assessment declares
- Five people commented on the decline in eel populations
- Four people commented that catches are stable even though effort has decreased.
- Two people all habitat recommendations and should be implemented as early as possible.
- Two people support all proposed monitoring program recommendations and should be implemented as soon as possible. Any persons involved in the eel fishing industry needs to report.
- Two people commented that more data is need before management action is taken.
- Two people stated their concern for poaching or that the illegal harvest is equal to or may dwarf the reported harvest.
- Two people commented that there have been strong glass eel surveys in the past few years

- One person commented that the actual eel harvest is likely higher than what is reported because of a number of foreign buyers purchasing small quantities of eels from fishermen with only a few pots.
- One person commented that states should have flexibility in managing their own fishery
- One person commented that we shouldn't make the same mistake as we did with haddock and cod.
- One person commented that the fact that Asian horseshoe crabs are being imported to supply bait for the commercial eel industry because the American horseshoe crab is being overfished is disturbing
- One person commented that other states should increase their fines for poaching
- One person commented that the elver fishery directly interferes with the Maine alewife run
- One person commented that fishermen are not the problem
- One person commented that the decrease in eels is correlated with increase in striped bass
- One person recommended adding a \$25 stocking fee to glass eel licenses in order to conduct restocking programs.
- Limited entry should be implemented for those fisheries that do not current have this.

Group/Organization Comments

Comments were received from the following organizations:

- 8 Towns and Great Marsh (MA)
- American Eel Sustainability Association
- Association to Preserve Cape Cod
- Brookfield Renewable Energy Group
- Barnstable County (MA) Coastal Resources
- 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
- 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
- NJ Marine Fish Council
- Maine Rivers
- Penobscot Bay Watch
- Mass Shellfish Officers
- Jersey Coast Anglers
- TNC

Commercial Management Measures

Glass Eel Fisheries

Option 1 – Status Quo

- Three comments were in favor of the status quo.

Option 2 – Closure

- 18 comments were in favor of a glass eel fishery closure, four specified an immediate closure. One comment was in support only if other actions to stop illegal harvest from their local waters is not implemented.
- One comment was opposed to closure of the glass eel fishery.

Option 3 – Quota

- Six comments were received in favor of a quota. Specifically one comment was in favor of using the 1998 – 2012 average and two comments were in favor of a 50% reduction. Comments in support were given because reducing catch at the glass eel stage would allow continuation of yellow eel fishery and other effort controls are not effective.
- One comment was opposed to a quota because habitat can only support a certain number of eels, overcrowding produces more males, glass eel recruitment is variable but at decade highs

Option 4 -Increased reporting

- Four comments were in favor. Need accurate reporting of harvest, need to require swipe cards to verify license holder

Option 5 – Pigmented Eel Tolerance

- Three comments were received in support of a pigmented eel tolerance. Specific management options that were given to meet this goal were that the harvest of year two eels should be banned (fingerlings) through the use of a mesh screen of appropriate size or through the use of a ¼ inch culling device.
- One comment was opposed, as the minimum size should be far above the size at which glass eels begin to pigment

General

- States with a glass eel fishery could allow exclusion of yellow eel fishery

Yellow Eel Fisheries Measures

Option 1 – Status Quo

- Seven comments were in favor of maintaining the status quo

Option 2 – Size Limits

- Eight comments were in support of a general increase, or specifically 8, 9, 10, or 11 inch minimum size, and that there needs to be consistent regulations to improve enforcement.
- One comment stated that a size limit must be combined with reasonable tolerance limit as measuring eels is impossible
- Two comments were received in opposition to any size limit

Option 3 – Gear Restrictions

- One comment was in favor of ½ by ½ inch mesh requirements
- Two comments were in favor of ½ by ¾ inch mesh requirements, specifically only if to avoid a quota
- Four comments were in favor of 1 by ½ inch mesh requirements. One specifically was only in favor only if the use of gear restrictions is required as this mesh size is on the market
- Two comments were opposed to gear restrictions

Option 4 – Quota

- Four comments were in favor, one specifically for a 50% reduction should be implemented, one for a reduction with no specified base year or percent reduction preference, one for using the base years 1990 – 2011, one for a 50% reduction from 1990 – 2011 base year landings, or that the lowest quota should be used.
- Three comments received in opposition to a quota system.

Option 5 – Monitoring

- Six comments were received in favor of increased (trip ticket) monitoring
- One comment was received in opposition to increased (trip ticket) monitoring
- Two commented that this is already in place in their fishery

Option 6 – Time Restrictions

- Five comments were received in support of two week fall closure.

- Five comments received were opposed to a two week fall closure. Comments included that it would be difficult to pull pots/traps, environmental conditions are hard to predict and highly impact catch, and would have an excessive impact, effects disproportionately

Silver Eel Fisheries Measures

Option 1 – Status Quo

- Five comments were received in favor of the status quo. Comments provided included that the time closure would be detrimental to the fishery and that the fishery is very small.

Option 2 – Time Closures

- Eight comments were received in support of increased silver eel restrictions or time closures as this life stage need the greatest protection.

General

- One comment supported closing the silver eel fishery
- One commented requested that a limited number of licenses be allowed for a limited amount of time.

Recreational Management Measures

Option 1 – Status Quo

- Seven comments were in support of maintaining the status quo.

Option 2 – 25 Fish Bag Limit

- Eight comments were in support of reducing the creel limit
- One commented that all anglers on party/charter boats, including crew/captain, should be subject to the same limit.

Option 3 – Party/Charter Exemption

- One comment was received in support of the exemption and one comment was received in opposition of the exemption
-

Habitat, Monitoring and General Comments

- 13 comments stated that eel populations are in decline / concerned about depletion
- 13 comments expressed a need to improve habitat and fish passage
- 10 comments discussed poaching, specially that poaching endangers the populations, is of a concern, or is reducing/impacting other conservation efforts
- Seven comments mentioned concern for a possible ESA listing
- Six comments stated that American eel have an important ecological value
- Four comments commended law enforcement efforts cannot believed law enforcement officials cannot be expected to do more
- Four comments were in support on increasing conservation efforts
- Three comments were in support of more monitoring / a complete life cycle survey
- Two comments discussed the historical important of eels for human sustenance and small scale, seasonal commercial fisheries.

- Two comments stated that there has been an increase in eel biomass in the last 15 years / stocks are increasing
- Two comments requested state flexibility in management measures
- Two comments states that there has been a reduction in fishermen and effort
- Two comments stated that CPUE is increasing
- Two comments did not think that fishermen are the problem or cause for decline
- Two comments stated that there need to be more/better data and that action is premature
- Two comments provided stated that there needs to be increased fines for poaching
- One comment received stated that the stock cannot be measured against its all time high
- One comment addressed the impact in the reduction in horseshoe crab bait and that this is the reason for the landings decline
- One comment stated that there has been high glass eel recruitment in the past few years
- One comment spoke of the valuable economic benefit to the region that the glass eel fishery provides
- One commented stated that glass eels have a 99%+ natural mortality rate
- One comment stated that there is insufficient basis to conclude that dam removal where feasible is an effective or desirable alternative to open up upstream habitat
- One comment was in support of focusing on non-FERC dams
- One commented was in support of assessing habitat availability accurately
- One commented requested that the validity of glass eel surveys be assessed
- One comment stated that laws should be consistent along the coast.

SUBMITTED WRITTEN PUBLIC COMMENT HAS
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TO FILE SIZE RESTRICTIONS

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