

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

2008



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**2008 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.

II. Status of the Stock

Current stock status for American eel is poorly understood due to limited and non-uniform stock assessment efforts and protocols across the range of the species. Reliable indices of abundance of this species are scarce. Limited data from indirect measurements (harvest by various gear types and locations) and localized direct stock assessment information are currently collected.

Although eel have been continuously harvested, consistent data on harvest are often not available. Harvest data are often a poor indicator of abundance because harvest is dependent upon demand and may consist of annually changing combinations of year classes. Most of the data collections were of short duration and were not standardized between management agencies. Harvest data from the Atlantic coastal states (Maine to Florida)¹ 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.

As stated in Section 2 of the FMP, the purpose of this management effort is to reverse any local or regional declines in abundance and institute consistent fishery-independent and dependent monitoring programs throughout the management unit.

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. Available data for American eel suggests decreasing recruitment, combined with localized declines in abundance. This presents an opportunity for ASMFC to work in cooperation with other entities, such as the GLFC, to preserve American eel stocks in those areas.

A stock assessment was presented to the Management Board during the February 2006 Meeting Week. The stock assessment failed some of the terms of reference according to the peer review advisory report. In May 2006, the Board tasked the American Eel Stock Assessment Subcommittee with following up on specific recommendations in the peer review report to improve the 2005 stock assessment. The Stock Assessment Subcommittee follow up to the peer review report was presented to the Board at the October 2006 Annual Meeting.

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

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 (though in South Carolina and Georgia no commercial yellow or silver eel landings were reported in 2007).

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 1996². Landings of yellow/silver eels in 2007 totaled 834,534 pounds, which represents a 13% increase from landings in 2006 (738,657 pounds).³ New Jersey, Delaware, and Maryland each reported landings over 100,000 pounds of eel, and together accounted for 74% of the coastwide commercial total landings in 2007.² Landings of glass eels in 2007 totaled 3,713 pounds and were only reported in Maine. Landings of glass eels have fluctuated from over 14,000 pounds in 1998 to a low of 1,282 pounds in 2004, with a general decline in landings seen over the past decade.

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 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. According to MRFSS⁴, 2007 recreational total catch was 140,371 fish, which is a 63% increase in the number of fish caught in 2006 (85,969 fish) and is the first increase in recreational catch since 2003. New Jersey accounted for 63% of the American eel recreational catch. Recreational catch was also reported in Delaware, Virginia, Florida, Georgia, Rhode Island, Massachusetts, South Carolina, Maryland and North Carolina (in descending order of catch). About 59% of the eel caught were released alive by the anglers. MRFSS 2007 total recreational harvest was 57,986 fish (PSE 56.9). This is the first time since 1993 that recreational harvest has been over 50,000 fish. 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.

² Personal communication, National Marine Fisheries Service, Fisheries Statistics Division, Silver Spring, MD

³ Harvest data for 2007 comes from the 2008 State Compliance Reports. All landings are preliminary and some are incomplete.

⁴ MRFSS Data for American Eel are unreliable. 2006 Proportional Standard Error (PSE) values for recreational harvest ranged from 0 to 99.7.

Table 1. State commercial regulations for the 2008 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"	License with two-year delayed entry system. 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 2. State recreational regulations for the 2008 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	Five trap limit.
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	None	None	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 survey for the purpose of monitoring annual recruitment of each year's cohort. 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.

In addition to these mandatory regulations, federal agencies are working to implement the recommendations to the Secretaries as listed in the FMP.

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. At that same meeting, the Board tasked the American Eel Technical Committee (TC) with reviewing state proposals for implementation of Addendum I to the American Eel Fishery Management Plan. The TC provided their comments on the state's proposals to the Board in a memo on July 7, 2006.

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 2010 stock assessment, which will present new and updated information on American eel stock status.

Delegates from the Atlantic States Marine Fishery Commission met with representatives from the Great Lakes Fishery Commission in April 2008 to begin discussions on working together to improve American eel management. The two groups agreed to jointly develop a Memorandum of Understanding that would

outline a strategy to work together to more effectively manage this international resource. A draft of the MOU will be available in early 2009 for Management Board review.

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

The PRT reviewed the state compliance for 2007. The PRT finds that all states are currently implementing the required provisions of the American Eel Fishery Management Plan.

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 2008, the states of New Hampshire, Massachusetts, Pennsylvania, South Carolina, Georgia, Florida and the District of Columbia requested and met the qualification criteria for *de minimis* status. Qualification for *de minimis* in 2008 was determined from state reported landings found in compliance reports and the NMFS website for the years 2006 and 2007. The states of Massachusetts, Pennsylvania, South Carolina, Georgia, and Florida requested and were granted *de minimis* status in 2007.

VII. Recommendations/Findings of the Plan Review Team

1. 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.
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.

State-By-State Evaluation

MAINE

Comments or trends highlighted in state report:

- A total of 988 YOY and 23 yellow eels used the three passages in 2007, by far the lowest number on record.
- Approximately 95% of the YOY recruitment occurred in two weeks (typically complete in one month or less. In contrast, the recruitment of juvenile eels was more prolonged.
- The total length and pigmentation of entering glass eels do not appear to be changing over time, but the weight of individual eels may be decreasing.
- Gear failure occurred twice as a result of increased discharge

Unreported information:

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

Areas of concern:

No biological data were collected from the commercial fishery.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

NEW HAMPSHIRE

Comments or trends highlighted in state report:

None

Unreported information:

None

Areas of concern:

None

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

The state of New Hampshire requests *de minimis* status for the fishing year 2008. The total landings in New Hampshire are below 1% of the average total coastwide landings for 2006 and 2007, thus New Hampshire meets the requirements for *de minimis*.

MASSACHUSETTS

Comments or trends highlighted in state report:

- The minimum sampling period in the YOY survey was increased to 10 weeks in 2007 and will be maintained in 2008.
- Three of the four rivers monitored in the YOY surveys lost a week or more due to heavy storm events.
- One haul in the Jones River had 2,912 YOY eels, the highest catch for a single haul in the data series.
- A fish passage chute was constructed on the Parker River in 2007 and should benefit eel passage.
- YOY catches on the Saugus and Acushnet Rivers continued to decline in 2007.

Unreported information:

None

Areas of concern:

No biological data were collected from the commercial fishery.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

The Commonwealth of Massachusetts requests *de minimis* status for the fishing year 2008. The total landings in Massachusetts are below 1% of the average total coastwide landings for 2006 and 2007, thus Massachusetts meets the requirements for *de minimis*.

RHODE ISLAND

Comments or trends highlighted in state report:

- A mandatory finfish logbook for commercial fisheries was implemented in 2007 for Rhode Island commercial fishers. This mandatory logbook will provide much needed American eel landings information, such as poundage, gear type and disposition.
- Rhode Island Fish and Wildlife is working with other agencies to incorporate eel passage in new fish ladder installations at seven dams on two of the largest rivers in Rhode Island.

Unreported information:

None

Areas of concern:

Commercial harvest was not sampled for biological data.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

CONNECTICUT

Comments or trends highlighted in state report:

- Construction of a new eel pass at the Ingham Hill Pond Dam (Fishing Brook, Old Saybrook, CT) was finished and operated for its inaugural season in 2007. It is intended that this site will replace the Connecticut River Fyke Net as Connecticut's mandatory young-of-year sampling site.
- Young-of-year eels sampled at the Fishing Brook Eel Pass were significantly smaller in weight and length than those sampled at the Connecticut River Fyke Net.
- CPUE at Fishing Brook was two times greater than at the Connecticut River Fyke Net.

Unreported information:

None

Areas of concern:

No biological data were collected from the commercial fishery.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

NEW YORK

Comments or trends highlighted in state report:

The total catch of pigmented elvers was the second highest catch since the survey began.

Unreported information:

None

Areas of concern:

- No biological data were collected from the commercial fishery. In order to conduct the biological monitoring required in the Plan, it is estimated that two additional staff, at a

minimum, would have to be added to the Diadromous Fish Investigations Unit, as well as increased funding for the processing of commercial monitoring samples.

- No mechanism exists to obtain data regarding the Characterization of Other Losses. New York suggests that the American Eel TC address these needs at the stock level, as part of an overall assessment, and identify general methods to address these issues.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

NEW JERSEY

Comments or trends highlighted in state report:

- This was the first year for New Jersey's commercial reporting requirements: Eel pot license holders are required to report monthly. All reports must be filed before a license is issued for the subsequent year.
- Landings have been increasing annually since 2001, with the highest reported in 2007.
- The geometric mean in the CPUE YOY abundance survey was significantly lower than 2006.
- The 2007 catch was significantly lower than the 2006 record year, but ranked fourth in the nine-year series.
- In an attempt to verify year class strength observed in the glass eel survey, a pilot survey of yellow eels was conducted in the same system as the YOY survey. Only three eels were collected, possibly due to obstruction by thick vegetation in the pot funnels or from sinking into the substrate. The survey will be used to refine sampling design in future years.
- Although no catch information has been reported, glass eel poaching may be occurring.

Unreported information:

None

Areas of concern:

None

Compliance issues:

Export estimates have been requested from Delaware Valley Seafood, the main dealer in New Jersey, but has not been provided yet

Recommendations for action by the American Eel Management Board:

None

PENNSYLVANIA

Comments or trends highlighted in state report:

- The YOY survey was terminated one week short of the six-week requirement due to a severe flood that raised river discharge and prevented the placement of sampling gear.

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* for the fishing year 2007. 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:

- There was a 10% increase in commercial eel landings in 2007 and the second highest on record since 1999 when logbook reporting became mandatory.
- The number of eel licenses sold dropped from 69 in 2006 to 65 in 2007 and was the lowest number of licenses issued since 1993.
- Effort, as measured by eel pots days, decreased by 9%, while effort, measured by pounds caught per pot per day fished, increased by 20%. This suggests the increase in landings was caused by an increase in eel abundance in the areas fished by eelers.
- The 2007 estimated recreational catch was 85% higher than the 2006 estimated catch and 39% higher than the 2005 estimated catch. This was the first increase in recreational catch since 2004 and the largest recreational catch since 2004 (data provided by MRFSS).

Unreported information:

None

Areas of concern:

None

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

MARYLAND

Comments or trends highlighted in state report:

- Total reported commercial eel landings for Maryland in 2007 were 307,842 pounds. This is considerably higher than mean annual landings (1983-2007) of 242,747(Figure 1). Over this 25-year period, landings have reflected a positive linear trend.
- Monthly reported eel landings in 2007 were bimodal. The spring (April-May) and fall (October- November) fisheries accounted for 50% and 27% of total yearly landings, respectively. This pattern of eel landings is quite typical as the decrease in landings in the summer reflects decreased effort as watermen typically switch to the more profitable blue crab fishery.
- CPUE was slightly lower in 2007 than in 2006, but remains the second highest CPUE since effort data has been collected.
- In 2007 total eel pot effort was nearly 40 % less than the time series average (1992-present) and 60% less than the time series high in effort, which occurred in 1997.
- Of the 192 eels tagged since 2004, four were recaptured in 2007.

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:

No American eel were collected in the young-of-year survey. A backpack electrofishing survey was added to complement this survey in 2007. A total of 1,072 eels were caught (12 YOY, 962 elvers, and 98 yellow eels).

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 for the fishing year 2007. There is no commercial fishery for American eel in the District.

POTOMAC RIVERS FISHERY COMMISSION

Comments or trends highlighted in state report:

- The commercial harvest in 2007 was 14 percent higher than the 2006 harvest.
- The CPUE for the eel pot fishery continued to show a steady to increasing trend in 2007.
- The efficacy of the YOY survey is questioned, given the high sampling effort and cost required to perform it, as well as the high variability and relatively low numbers of eels found.

Unreported information:

None

Areas of concern:

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:

- The harvest rate for 2007 was estimated as 2.03 pounds/pot-hour. This value is about 42% lower than the 2006 estimate of 3.49 pounds/pot-hour and 48% lower than the 1994–2007 time series average catch rate of 3.88 pounds/pot-hour.

Unreported information:

None.

Areas of concern:

None.

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

None

NORTH CAROLINA

Comments or trends highlighted in state report:

- In 2007 a new eel pot logbook program was put into place at the individual commercial fisher level, providing documentation on the number of pots fished, soak time and landings per pot. Reported landings in the eel logbook were nearly 10% less than that reported by the dealer. Prior to this many eel fishermen would hold their catches, from several days of fishing, and later sell these “accumulative” catches to dealers combined, so it was not possible to obtain a true estimate of catch rate or catch-per-unit-effort (CPUE).

Unreported information:

The report does not provide an estimated percent of harvest going to food versus bait, estimates of export by season, or commercial catch permitted for personal use.

Areas of concern:

No biological data were 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:

- American eel mortalities are known to occur from impingement and entrainment at various water intakes facilities, but numerical data is unavailable. Also, recreational anglers who dislike eels kill an unknown number.
- An elver passage protocol is being developed for the St. Stephen Dam.

Unreported information:

None

Areas of concern:

None

Compliance issues:

None

Recommendations for action by the American Eel Management Board:

The State of South Carolina requests *de minimis* status for the fishing year 2007. The total landings in South Carolina are below 1% of the average total coastwide landings for 2006 and 2007, thus South Carolina meets the requirements for *de minimis*.

GEORGIA

Comments or trends highlighted in state report:

- In 2007, no eels were reported landed. Landings for the ten-year period, 1997-2006 have averaged less than 500 lbs. annually.
- 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. In 2007, the Wildlife Resources Division estimated that 1,596 eels were harvested and that 653 eels were released alive from 14,041 non-targeted trips.

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 for the fishing year 2008. The total landings in Georgia are below 1% of the average total coastwide landings for 2006 and 2007, thus Georgia meets the requirements for *de minimis*.

FLORIDA

Comments or trends highlighted in state report:

None

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 for the fishing year 2007. The total landings in Florida are below 1% of the average total coastwide landings for 2005 and 2006, thus Florida meets the requirements for *de minimis*.