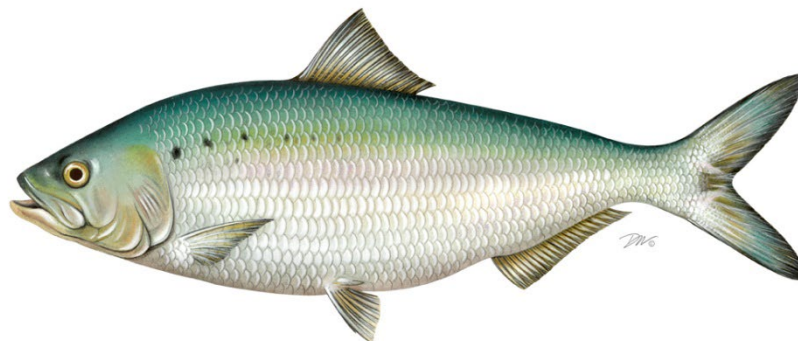




Technical Committee Recommendations on Improving Shad Stocks



ASMFC Shad and River Herring Management Board

February 4, 2021

Outline



1. Background on Board Task
2. TC Recommendations
 - System-Specific
 - Coastwide
3. Next Steps

Background



- In August 2020, the Board accepted the American shad benchmark stock assessment and peer review for management use.
- The assessment found that American shad remain depleted on a coastwide basis, and found unfavorable stock status for several system-specific stocks.
- The Board tasked the TC with “identifying potential paths forward to improve shad stocks along the coast considering the assessment results.”

Background



System	Stock Status	Fisheries
Connecticut	Unsustainable Adult Mortality	Commercial & Recreational
Hudson	Depleted	None
Delaware	Unsustainable Adult Mortality	Commercial & Recreational
Potomac	Unsustainable Adult Mortality	Commercial Bycatch
Maine (all)	Unknown	Recreational
Merrimack	Unknown	Recreational
Tar-Pamilco	Unknown	Commercial & Recreational
Cape Fear	Unknown	Commercial & Recreational
South Carolina*	Unknown	Commercial & Recreational
Savannah	Unknown	Commercial & Recreational
Altamaha	Unknown	Commercial & Recreational
St. Johns	Unknown	Recreational
Coastwide Metapopulation	Depleted	



System-Specific Recommendations

Unsustainable/Depleted Systems

Connecticut River



- Recommendations:
 - Continue to monitor SFMP metrics: adult lift passage, juvenile abundance, and adult escapement and implement management response to negative metrics, as appropriate
 - Work with Connecticut River Atlantic Salmon Commission partners to realize continued passage and habitat improvements
 - Explore alternative (non-creel) survey methods to provide recreational effort and harvest estimates

Connecticut River



- Rationale:
 - increasing trend for annual adult shad fish lift counts over the past 12-15 years
 - SFMP metrics have remained above target levels
 - Explore alternative (non-creel) survey methods to provide recreational effort and harvest estimates
 - high downstream mortality at hydropower facilities and other associated factors are primary sources of mortality, rather than fishery

Delaware River



- Recommendations:
 - No management/monitoring changes for 2021
 - Revise the SFMP to include updated data and stock assessment results
 - incorporate a management response to be triggered by an unsustainable adult mortality determination from the stock assessment in SFMP

Delaware River



- Rationale:
 - SFMP will be updated in 2021 under 5 year timeline
 - Allows evaluation of potential management measures by TC

Potomac River



- Recommendations:
 - Reduce or eliminate harvest/bycatch of Potomac River origin American shad in ocean fisheries
 - Prioritize conservation of natural land cover throughout the lower Potomac watershed
 - Continuation of expansion of commercial and recreational fisheries on non-native predators (blue catfish and flathead catfish) in the Potomac River
 - Identify the contribution of Potomac River origin American shad to mixed stock ocean bycatch through the collection and submission of biological samples to the U.S. Geological Survey for their effort in building a comprehensive genetic tissue repository for alosines

Potomac River



- Rationale:
 - Additional years of data (2018-2020) show continued increasing trends in the Potomac Pound Net CPUE index, spawning stock survey, and juvenile survey
 - TC concerned that further restricting limited bycatch/broodstock removals could result in reduced data availability for assessment, and would likely not have a significant positive impact on the stock

Hudson River



- Recommendations:
 - Reduce/eliminate harvest of Hudson shad in mixed-stock fisheries and ocean bycatch
 - Identify stock composition of bycatch occurring in Federal fisheries and quantify impact to the Hudson stock
 - Implement habitat restoration actions identified in the Hudson River Estuary Habitat Restoration Plan to restore high-quality spawning, nursery and refuge habitats for American shad
 - Continuation of fishery closure until recovery targets are met and stocks are robust enough to support sustainable harvest (long-term; high priority)

Hudson River



- Rationale:
 - currently no harvest of American shad permitted in the Hudson
 - harvest of Hudson-origin shad in mixed-stock fisheries in large coastal bays (i.e. Delaware Bay), incidental bycatch of American shad in federal fisheries, and habitat loss are the main factors affecting the status of the stock



System-Specific Recommendations

Unknown Status with a Fishery

Maine Systems



- Recommendation:
 - Removal of significant barriers to upstream passage to enhance production, increase abundance and provide more opportunity to collect biological data through additional sampling methods without taking a significant portion of the returns to a system
- Rationale:
 - Data limitations: insufficient time series length and validity of count data collected at monitored fishways
 - Limited potential to improve biological data collection due to small run sizes

Merrimack River



- Recommendations:
 - address concerns with data time series and age sample sizes in order to produce mortality estimates
 - improve spawning ratio data time series through ongoing shad scale aging
 - continue annual reviews of hydropower dams to identify passage impacts and recommend improvements
 - Development of juvenile abundance index

Merrimack River



- Rationale:
 - Insufficient data to determine abundance status
 - deficiencies with low age samples in some years prevented the calculation of a mortality estimate
 - Merrimack SFMP spawning run sustainability benchmark achieved with increasing trend in the last 10 years

Tar-Pamlico & Cape Fear



- Recommendations:
 - no additional actions at this time
- Rationale
 - T-P: Female relative F has remained well below the threshold since 2013, consistent with a decline in commercial landings; female abundance index fell below threshold in last two years (2018 and 2019)
 - CF: increasing trend in adult abundance, likely a sign of improved passage; SFMP metrics for female relative abundance and F have not exceeded thresholds since 2011 and 2012
 - exploratory juvenile abundance sampling for striped bass initiated in both systems in 2017, which may be of use for a juvenile shad abundance index in the future

South Carolina Systems



- Recommendations:
 - No changes to management/monitoring requirements at this time
 - Continue/improve monitoring programs and sampling efforts in all systems to expand time series consistent with stock assessment research recommendations
 - Collection of otoliths and scales

South Carolina Systems



- Rationale:
 - Conflicting (Winyah Bay, Santee-Cooper) or no trend (ACE Basin) in adult abundance indices
 - Data time series for YOY electrofishing surveys will meet assessment threshold (10 years) for next assessment

Savannah River



- Recommendations:
 - No changes to management/monitoring requirements at this time
 - Continue/improve monitoring programs and sampling efforts in all systems to expand time series consistent with stock assessment research recommendations
 - Collection of otoliths and scales

Savannah River



- Rationale:
 - Conflicting trends detected in adult abundance indices
 - Data time series for YOY seine survey will meet assessment threshold (10 years) for next assessment
 - GADNR is considering implementing improvements to the Altamaha River Tagging Survey recommended in the assessment

Altamaha River



- Recommendations:
 - No changes to management/monitoring requirements at this time
 - Continue/improve monitoring programs and sampling efforts in all systems to expand time series consistent with stock assessment research recommendations
 - Collection of otoliths and scales

Altamaha River



- Rationale:
 - No trend detected in adult abundance indices
 - Data time series for adult and YOY electrofishing surveys will meet assessment threshold (10 years) for next assessment

St. Johns River



- Recommendations:
 - No changes to management/monitoring requirements at this time
 - improve monitoring data by better accounting for environmental variability effects, and using age data to identify year class and maturity schedule

St. Johns River



- Rationale:
 - YOY and spawning stock abundance indices showed no trend and an increasing trend, respectively
 - mean fork length of males and females both showed increasing trends
 - Additional data (spawner otoliths for age composition and size-at-age) will reach time-series threshold of 10 years and be available for the next assessment
 - recreational harvest is the only known source of American shad removals



Coastwide Recommendations

Coastwide Recommendations



- Further action is needed to improve fish passage along the coast
 - passage mortality poses substantial threat to shad stocks & limits recovery potential
 - assessment analysis suggests passage barriers reduce coastwide spawner production potential by up to 41%.
 - TC is preparing a memo with recommendations for Board action related to passage
- Paired otoliths and scales should be collected in all systems where it is possible
- States should aim to improve surveys to increase survey power to detect trends

Coastwide Recommendations



- System-specific restoration targets should be developed where appropriate and when sufficient data are available, or revisited where they already exist.
 - To provide measurable goals for evaluating recovery efforts
- TC recommends the Board task them with developing alternative methods to evaluate bycatch removals in directed mixed-stock fisheries in state waters.
 - Necessary to understand and reduce impacts to external stocks of directed mixed-stock fisheries (e.g. Hudson river shad caught in Delaware Bay)

Priority Research



- TC highlighted two research recommendations as top priorities:
 1. Annual stock composition sampling through existing and new observer programs from all mixed-stock fisheries (bycatch and directed).
 2. Otoliths should be collected as the preferred age structure. If collection of otoliths presents perceived impact to conservation of the stock/is not feasible, an annual subsample of paired otolith and scales should be collected (100+ samples) to quantify error between structures

Next Steps



- **Board Action for Consideration**
 - Task TC with developing alternative methods to evaluate bycatch removals in directed mixed-stock fisheries in state waters



Questions?



AP Comments on American Shad Assessment and TC Recommendations

Pam Lyons Gromen, Shad & River Herring AP Chair
Presented to ASMFC Shad and River Herring Board
February 4, 2021

Background



The AP met twice via webinar since the August meeting:

- On October 26th, the AP reviewed the results of the 2020 American Shad Benchmark Assessment and provided comments on the initial draft of the TC memorandum responding to the task assigned in August.
- On January 15th, the AP reviewed updated TC recommendations for improving the coastwide meta-population and system-specific stocks identified as depleted, unsustainable or unknown with an active fishery. The AP offered input on both system-specific and coastwide recommendations.
- AP attendees included representatives from NH, NY, NJ, DE, NC and non-traditional stakeholders.

Hudson River



- Status: Depleted
- General support for TC recommendations, although reducing/eliminating ocean bycatch may be challenging, and it is unclear how this will be done.

Delaware River Basin



- Status: Unsustainable Adult Mortality
- Concerns were raised about the surveys used to estimate Delaware Bay mortality in the assessment: 1) the Smithfield Beach Gill Net Survey, 2) the Lewis Haul Seine Fishery, and 3) the Lehigh River Electrofishing Survey. None of these surveys are adequately designed and executed for assessing mortality or stock status.
- Recommend that the Delaware River Coop explore other existing monitoring surveys for assessing stock status (e.g. DNREC trawl survey) and consider reprioritization (addition/deletion) of currently used indices to assess stock status in the Delaware Basin FMP.

Tar-Pamlico and Cape Fear



- Status: Unknown with Active Fisheries
- The TC recommendation for no changes to management is acceptable as long as no additional fishing pressure is added.
- Concerns were expressed that additional information for the Tar-Pamlico and Cape Fear systems could have been included in the assessment.

Otolith Sampling



- Sampling targets should be better defined for various data sources (i.e. specific stocks, fishery-independent vs. dependent surveys) in order to ensure enough otolith sampling can be completed to meet stock assessment needs.
- Concern was raised about the assessment research recommendation to collect 100 otolith samples. It is unclear whether this recommended amount applies to each system, state or the whole coast. It may be challenging to obtain 100 samples from each state.

Coastwide Comments



Mixed-stock Fisheries and Ocean Bycatch

- The AP discussed the importance of genetic data to characterize stock composition in the Delaware Bay mixed-stock fishery and in ocean bycatch. Genetic information is a major data gap in the assessment.
- All AP members agreed that the Board should support, however possible, the United States Geological Survey (USGS) project to develop a genetic repository for alosine species.
- The Commission should reach out to the Northeast Fishery Observer Program (NEFOP) to ask that they prioritize sampling of shad in federal fishery bycatch.
- Data from the shore-side monitoring program performed by the Massachusetts Department of Marine Fisheries should be incorporated in the next assessment to improve information on ocean bycatch.

Coastwide Comments



Data Gaps in the Assessment

The AP flagged the following issues as notable data gaps in the assessment that are in need of the Board's attention:

- Juvenile mortality estimates
- Information to quantify recreational effort, harvest and incidental mortality on a coastwide spatial scale (MRIP does not sample upper stretches of tributaries that are important habitat for spawning fish.)
- Reporting of incidental catch in recreational and commercial fisheries from all systems, including coastal waters. Bycatch should be documented and reported even if the current stock status in a system is deemed sustainable.
- Environmental information like climate, streamflow, and water quality

Coastwide Comments



Climate Change

- American shad have been classified as “highly vulnerable” to climate change, and this is an issue that needs to be prioritized and addressed in future work and assessments.
- Communication between the Commission and federal partners about climate impacts could be improved to better define how information is shared between partners and taken into account by fishery managers.
- Available information about American shad distribution shifts could be useful for better understanding and mitigating impacts on mixed stocks in the ocean.



Questions?



Technical Committee Recommendations on Board Task: Improvements to Amendments 2 and 3

Presented by Brian Neilan (TC Chair, NJDEP)

ASMFC Shad and River Herring Management Board

February 4, 2021

Outline



1. Background on Board Task
2. TC Recommendations
3. Board Actions for Consideration

Background



- October 2017: TC identified several inconsistencies between state management programs FMP requirements (Amendments 2 & 3)
 - Board task to develop recommendations
- October 2019: TC presented report on state inconsistencies and recommendations for resolving each issue
 - Board directed states to submit proposals
- August 2020: Board approved state proposals to resolve inconsistencies, consistent with TC recommendations

TC Task



Board tasked TC to develop proposed improvements to Amendments 2 and 3 with regard to the following items:

1. Management and monitoring of rivers with low abundance and harvest of shad and river herring
2. Standardization of Sustainable Fishery Management Plan (SFMP) requirements: content, metrics, and management responses to triggers
3. Incorporation of stock assessment information into SFMPs and discussion on the timeline for renewing plans
4. Clarification of *de minimis* requirements as they pertain to SFMPs
5. Review of the number of years of data are required before developing a SFMP

TC Recommendations (1)



1. Management and monitoring of rivers with low abundance and harvest of shad and river herring

- The TC does not recommend any changes to the FMP to address commercial fisheries (i.e. maintain SFMP requirement)
- FMP should clarify that management of recreational fisheries should be dependent on the availability of harvest and monitoring information

TC Recommendations (1)



1. Management and monitoring of rivers with low abundance and harvest of shad and river herring

		Data to support SFMP	
		Sufficient	Insufficient
Rec. Harvest	None (Species Absent)	NA	AMP
	Unknown (Species Present)	AMP / SFMP	Catch & release
	Known/ Suspected	SFMP	Catch & release

TC Recommendations (2)



2. Standardization of SFMP requirements: content, metrics, and management responses to triggers

- The TC did not recommend additional requirements for the type of sustainability metrics that can be used in SFMPs

TC Recommendations (2)



2. Standardization of SFMP requirements: content, metrics, and management responses to triggers

- The TC recommends additional language be added to the FMP to strengthen the SFMPs in several areas:
 - A) the level of detail required in SFMPs on management response to the stock falling below defined sustainability target or threshold
 - B) when a state may relax restrictions implemented in response to a stock falling below the sustainability target/threshold, and
 - C) management of interjurisdictional waterbodies

TC Recommendations (2)



2. A. Management Responses in SFMPs

- Amendments 2 and 3 say SFMPs must detail restrictions that will be enacted to allow for an increase in spawning stock abundance and juvenile recruitment
- TC recommends adding:
 - Types of restrictions that can be considered
 - A plan may provide multiple options for restrictions
 - The state must notify the Board in the next annual compliance report if a stock falls below an SFMP threshold, and pursue implementation of management response for following calendar year

TC Recommendations (2)



2. B. Relaxing restrictions

- Amendments 2 and 3 say proposals to reopen closed fisheries may be submitted in the annual Compliance Report, and will be reviewed by the PDT, TC, and Management Board.
- TC recommends:
 - management restrictions in response to the stock falling below the sustainability target(s) must stay in place until target(s) have been met for at least 5 consecutive years.

TC Recommendations (2)



2. C. Interjurisdictional management guidance

- Amendment 2 encourages cooperative development of SFMP targets; Amendment 3 seems to say both agencies should have plans unless there is a cooperative.
- TC recommends:
 - Cooperative development of 1 shared SFMP
 - Consistent targets/metrics
 - When possible, consistent management measures for fisheries permitted by different jurisdictions in shared water bodies

TC Recommendations (3)



3. Incorporation of stock assessment information into SFMPs and discussion on the timeline for renewing plans

- Concern among TC members that for many systems there is inconsistency between the information used to assess stock status through the stock assessment and that used to develop sustainability metrics for SFMPs

TC Recommendations (3)



3. Incorporation of stock assessment information into SFMPs and discussion on the timeline for renewing plans

- TC recommendations:
 - TC should compile information on current monitoring programs by species and system, and develop recommendations for improvements to data for use in SFMPs and assessments
 - No recommend change to the 5-year timeline for renewing SFMPs and AMPs

TC Recommendations (4)



4. Clarification of *de minimis* requirements as they pertain to SFMPs

- Current definition in Amendments 2 and 3:
 - “States that report commercial landings of [river herring/shad] that are less than 1% of the coastwide commercial total are exempted from sub-sampling commercial and recreational catch for biological data”
- Does not exempt states from requirement to prohibit (recreational) harvest and possession, with exceptions for systems with a sustainable fishery

TC Recommendations (4)



4. Clarification of *de minimis* requirements as they pertain to SFMPs

- TC recommendation:
 - The TC does not recommend any changes to the current *de minimis* criteria and exemptions for states with *de minimis* status.

TC Recommendations (4)



5. Review of the number of years of data required before developing a SFMP

- Amendments 2 and 3 do not contain explicit requirements for time-series length
- TC recommendation:
 - **Shad**: minimum of 10 years of data required to establish primary sustainability metric in SFMP/AMP
 - **River Herring**: the standard for data time-series length for SFMP metrics should be 10 years.
 - The TC may accept a time series trend of 7-9 years, with consideration of additional information to justify shorter time series (e.g. exploitation rate, stock size, etc.)

Additional Recommendations



- **Add language to FMP to provide guidance on the use of AMPs:**
- AMPs should include the following components:
 - Rationale or justification for why SFMP cannot be used
 - Justification that proposed management program will be conservationally equivalent to catch and release only regulations
 - Explanation of how the state will determine if/when an AMP is no longer appropriate (data source and trigger, e.g. 3 yrs of harvest)
 - Description of management response if trigger is met
 - E.g. If harvest is documented through a creel survey for 3 consecutive years, catch and release only regulations will be implemented statewide or for specified systems
 - If management trigger in AMP is met, state must notify Board in next annual compliance report, and pursue implementation of management response for the following calendar year.

Additional Recommendations



- The TC discussed the idea of allowing limited recreational harvest in systems without an SFMP/AMP using a low statewide bag limit
 - **The TC does not recommend allowing any recreational harvest to occur on systems that are not managed through an approved SFMP or AMP**
 - Unmonitored systems could experience unchecked recreational fishing pressure which could be detrimental to small stocks
- The TC recommends AMPs allowing statewide recreational bag limits or no recreational regulations must include a trigger to implement catch and release only regulations or propose an SFMP

Board Action



Board Actions for Consideration

1. Initiating management action (addendum) to modify the FMP as recommended by the TC
 - More time/more enforceability of requirements
2. Tasking TC with developing technical guidance document to guide SFMP/AMP development and evaluation
 - Less time/less enforceability of requirements



Questions?



Shad Habitat Plan Updates



ASMFC Shad and River Herring Management Board

February 4, 2021

Background



- Amendment 3 requires all states and jurisdictions to submit a habitat plan for American shad
 - summary of current and historical spawning and nursery habitat, threats to those habitats, and habitat restoration programs
- In February 2020, Board asked states to update habitat plans
 - New plans for Merrimac and Hudson Rivers
- States began process of reviewing habitat plans and determining what updates are needed
 - Many TC members encountered delays due to COVID-19

Status of Plans



- 6 plan updates evaluated by TC and submitted for Board consideration:
 - Maine
 - New Hampshire
 - Maryland
 - North Carolina
 - Savannah River
 - Georgia



Habitat Plan Updates

Maine



- Graphs, Tables and Figures updated with recent data
- No significant Habitat Improvements since last Habitat Plan
- FERC relicensing of dams on the mainstems of Maine's large rivers over the next 10 years (Androscoggin, Kennebec and Saco) will provide American shad passage and improve productivity

New Hampshire



- Removed references to the Great Dam and associated fishway from the plan. The dam and fishway were removed in 2016.
 - Since there was a fishway on the dam there was no gain in shad habitat.

Maryland



- Spawning and rearing habitat estimates recalculated
- The removal of Bloede dam on the Patapsco River was completed in 2019
- Conowingo dam remains the most significant barrier to American shad migration in the state. Requirements associated with the pending relicensing of the dam should improve passage conditions, though upstream and downstream passage efficiency must be improved at dams upstream of Conowingo as well.
- New information regarding water withdrawals, channelization & dredging, and competition & predation have been added.
- The most significant threat to American shad in Maryland waters is probably habitat degradation associated with land use modifications associated with urban and suburban development. The egg and larval life stages of American shad are particularly vulnerable to these stressors.

North Carolina



Introduction

- NC Habitat Plan for American Shad relies heavily upon information and recommendations in the 2016 Coastal Habitat Protection Plan (CHPP). Next CHPP update to be released in 2021.

Section 1 - Habitat Assessment

- Pee-Dee River and Other Coastal Rivers sections added to be consistent with SFMPs
- Strategic Habitat Areas (SHAs) for all four coastal regions have been approved by the North Carolina Marine Fisheries Commission, designating the areas in rule.

Section 2 - Threats Assessment

- Language added to capture the barrier and fish passage modeling approaches from the 2020 American shad benchmark stock assessment
- Link to the Southeast Aquatic Barrier Prioritization Tool for additional info on aquatic barriers in NC
- Toxic and Thermal Discharges Inventory and Assessment: additional info and link to the NC water quality data assessments and impaired waters list
- Land Use Inventory and Assessment: additional info and link to NOAA Coastal Change Analysis Program 2016 Regional Land Cover and Change Data Set
- Climate Change Inventory and Assessment: info and link to NC Executive Order that outlines NC's commitment to addressing climate change and transition to a clean energy economy

North Carolina



Section 3 – Habitat Restoration Program

- Neuse River: 2017 Milburnie Dam removal
- Provided link and background information on Cape Fear Basin Action Plan for Migratory Fish.
- Cape Fear River: USACE authorized a disposition study in 2019, fate of 3 dams the dams is in question pending the study
- Hatchery Product Supplementation Program
 - NC Wildlife Resources Commission and program partners decided to temporarily halt the Roanoke River restoration program in 2019 for at least three years due to hatchery contribution concerns.
 - Smaller scale Neuse River restoration project also ceased in 2019
- Water Quality Improvement Program
 - additional info/link provided for hydrologic models of all 17 river basins
 - additional info/link provided for nutrient criteria plan under development

Savannah River



- Recent information regarding status of Savannah Harbor deepening and plans to install fish passage at New Savannah Bluff Lock and Dam (NSBLD) in Augusta, GA
- Update to the condition of the navigation lock at NSBLD used to pass fish. Currently inoperable and hasn't passed fish since 2013
- New links to interactive portals developed by USACE and SCDHEC to assess environmental data and discharge permit information
- Efforts to control invasive species (flathead catfish) and link to plan

Georgia



- Progress made in recent years to re-establish fish passage and improving habitat.
 - Ex: removal of the White Dam on the Middle Oconee River in 2018
- CPUEs and numbers of removed fish of invasive flathead and blue catfish were updated
- Added language referencing passage concerns highlighted in 2020 Stock Assessment

Technical Committee Review



- The Technical Committee reviewed and recommends approval of the updated Shad Habitat Plans for ME, NH, MD, NC, Savannah River, and GA

Next Steps



- *Today:* Board considers approval of the plans presented today
- Recommendation: Remaining states update habitat plans (and submit new plans for Hudson and Merrimack) in time for next Board meeting
- *Spring 2021:* TC evaluates new habitat plans and proposed updates



Questions?



Shad and River Herring FMP Review and Compliance for the 2019 Fishing Year



Presented to Shad and River Herring
Management Board
February 4, 2021

Outline



1. Landings
2. Fish Passage
3. Stocking Efforts
4. Sturgeon Interactions
5. *De minimis* requests
6. PRT Report



Commercial Landings



	River Herring	American Shad	Hickory Shad
Maine	*	C	C
New Hampshire	*	0	0
Massachusetts	*	104,058	0
Rhode Island	*	0	12,944
Connecticut	*	5,596	C
New York	*	1,581	C
New Jersey	*	18,303	C
Pennsylvania	*	0	0
Delaware	*	2,404	0
Maryland	*	0	0
DC	*	0	0
PRFC	*	17,454	0
Virginia	*	3,821	414
North Carolina	*	46,151	117,655
South Carolina	*	43,290	C
Georgia	*	30,356	12,104
Florida	*	0	0
Total	3,222,122	273,450	143,851

Required Passage Counts



- Counts required in ME, NH, MA, RI, CT, PA, MD, and SC
- Coastwide total passage in 2019:
 - 6.5 million river herring
 - 437,853 shad



Coastwide Stocking



- 2019: shad fry stocked in NH, MA, PA, DE, MD, Potomac River, NC, SC
- Total shad stocked in 2019: 11,964,361
- No shad stocked in RI, VA, NC, GA in 2019
- 1,195,808 river herring larvae stocked in Harrison Lake, VA



Sturgeon Interactions



- 139 interactions were reported in 2019
 - 0 fatalities reported
- Reported by CT, PRFC, VA, NC, SC, GA
- In 2019 gill netters in NJ coastal waters reported 3,893 lbs of sturgeon discarded. Number of fish and mortality is unknown.
- 2019 RI data not yet available



De minimis Requests



Shad

- ME, NH, MA, FL

River herring

- NH, FL
- These states meet the requirements for *de minimis*.



PRT Report



1. In 2019, several states allowed recreational harvest for shad and/or river herring in absence of an approved SFMP. **These issues have been resolved through the approval of the following plans:**
 - Maine SFMP for American shad (2020)
 - South Carolina: Alternative Management Plan for river herring (2020)
 - Georgia: Alternative Management Plan for river herring (2020)
 - Florida: Alternative Management Plan for river herring in all state waters, and for American shad outside of the St. Johns system (2020)



PRT Report



2. Several states did not report on all monitoring requirements listed under Amendments 2 and 3 (Table 6 in FMP Review).
 - Copy of regulations in effect
 - Biological sampling (age, length, sex samples)
 - Repeat spawning/ mortality estimates
 - Recreational creel surveys
3. Most states did not submit monitoring data in a separate Excel file (required by Amendment 3).



Compliance Report Format



- **PRT recommends streamlining compliance reports**

Basic Outline:

- I. Introduction
 - II. Request for de minimis
 - III. Harvest and Losses
 - IV. Previous year's fishery and management program
 - V. Planned management programs for the current calendar year
- PRT recommends removing detailed descriptions and results from annual compliance report body
 - Monitoring results should be provided in Excel spreadsheet
 - Appendices for regulations, monitoring descriptions



Board Action



- Consider approval of the Shad and River Herring FMP Review for the 2019 fishing year, state compliance reports, and *de minimis* status for Maine, New Hampshire, Massachusetts and Florida.





Questions?