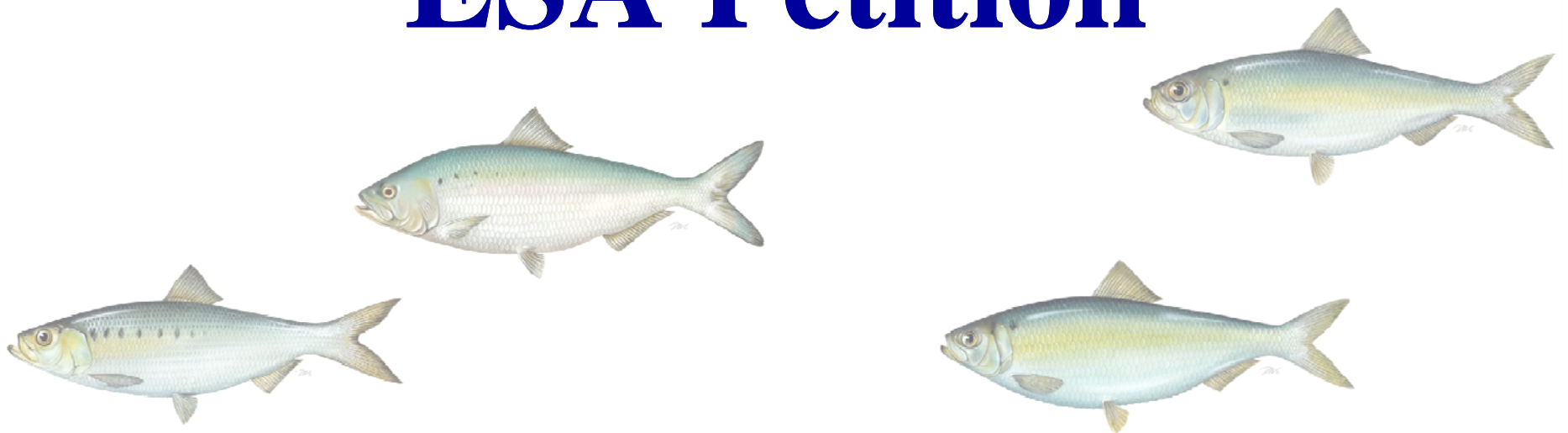




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ESA Petition





ESA Petition

- In conjunction with the 2012 ASMFC Benchmark Stock Assessment for River Herring NMFS conducted three status review workshops
 - Stock structure
 - Extinction Risk
 - Climate Change
- Workshops held in June and July
- Many agency TC and SAS members, along with ASMFC staff, were involved in these workshops.





Stock Structure

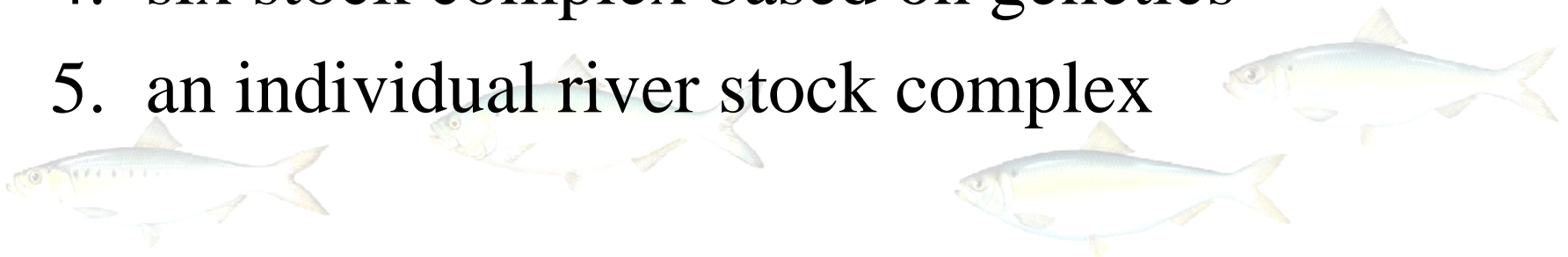
- The main objectives given to the group were:
 - determine whether there is evidence of stock structure for alewife and blueback herring;
 - provide NMFS with an individual expert opinion on the extent (if any) of stock structure for alewife and blueback herring.





Stock Structure

- For alewives, stock structure hypotheses included:
 1. single stock complex
 2. four stock complex as identified in the petition
 3. four stock complex based on geographic breaks (Cape Cod, Cape Hatteras) and management differences (U.S. and Canada)
 4. six stock complex based on genetics
 5. an individual river stock complex





Stock Structure

- Blueback herring, stock structure hypotheses:
 1. single stock complex
 2. three stock complex as identified by the petition
 3. four stock complex based on known breaks (Cape Cod and Cape Hatteras) and management differences (U.S. and Canada)
 4. four stock complex based on genetics
 5. individual river stock complex





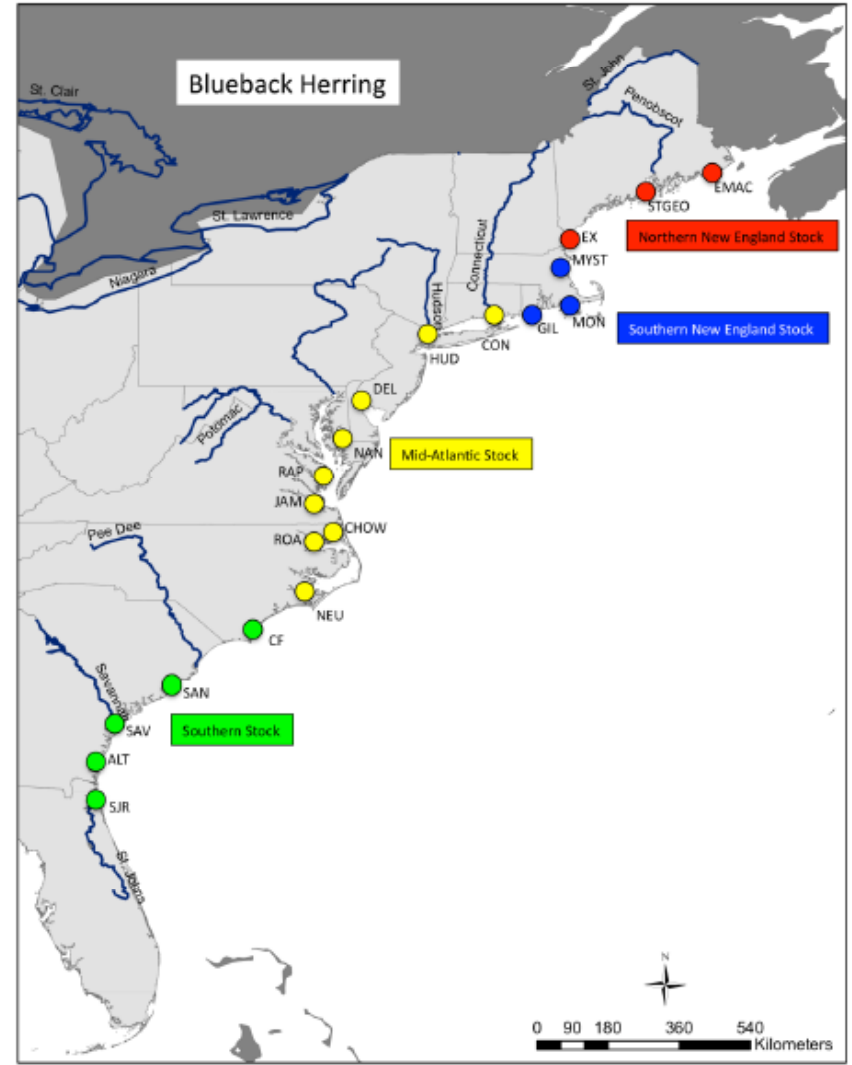
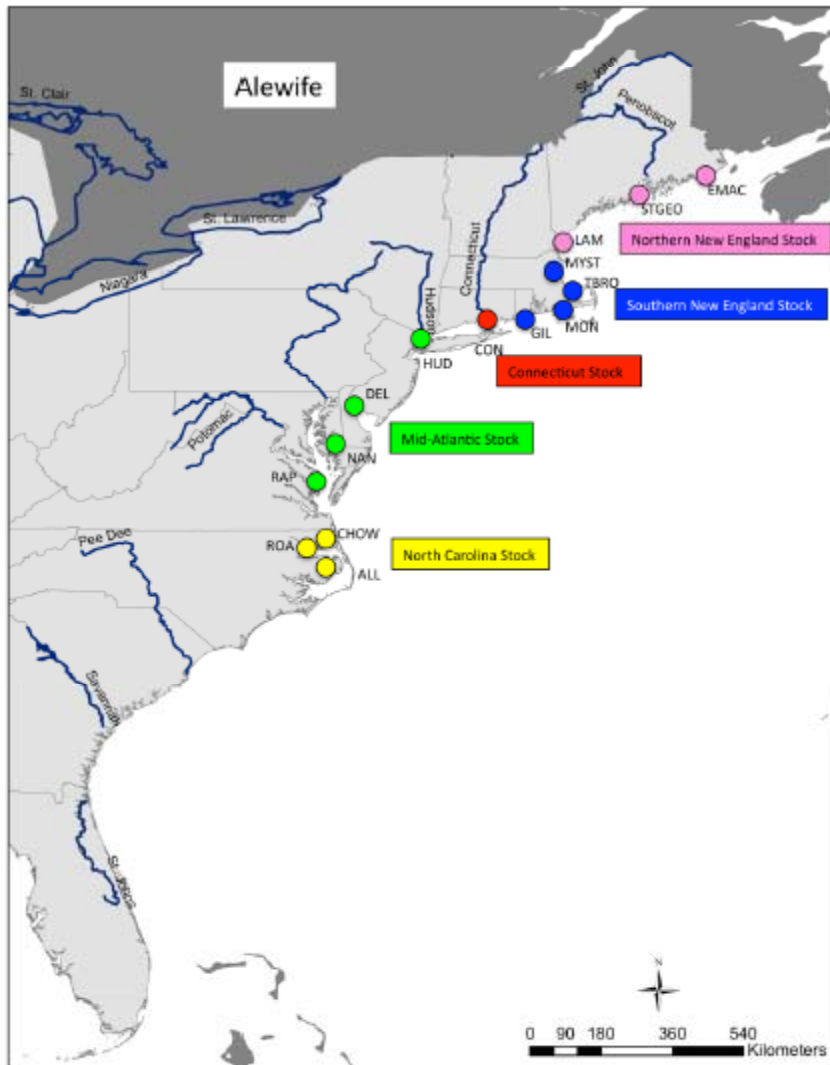
Stock Structure

- Palkovacs *et al.* 2012, unpublished data
 - Analyses identified five genetically distinguishable stocks for alewife:
 - Canada, Northern NE, Southern NE, Mid-Atlantic, and North Carolina.
 - For blueback herring, there were five genetically identifiable stock complexes:
 - Canada, Northern NE, Southern NE, Mid Atlantic, and Southern





Stock Structure





Stock Structure

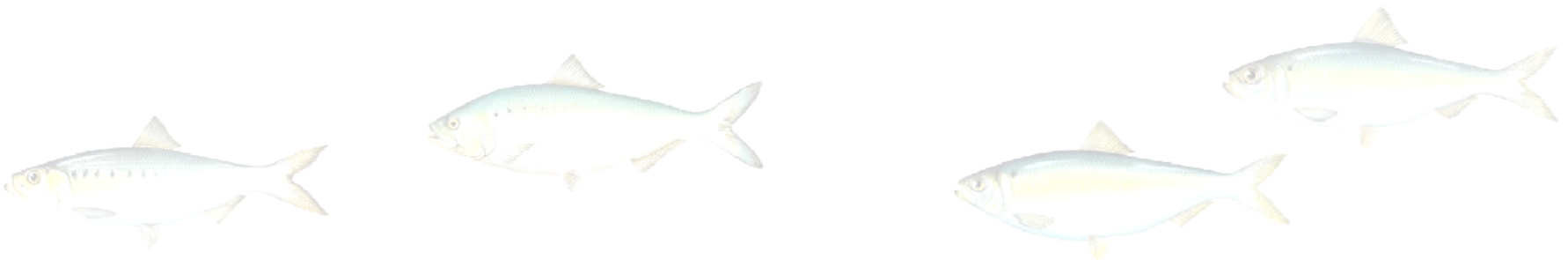
- Other discussions focused on:
 - Genetic diversity in ME Rivers
 - Influence of stocking
 - Morphological and physiological differences in ME/MA and NC Rivers
 - Behavior and life history in NH Rivers
 - Marine Migration
 - Landlocked alewife **
 - 11 major data gaps identified





Stock Structure Recommendations

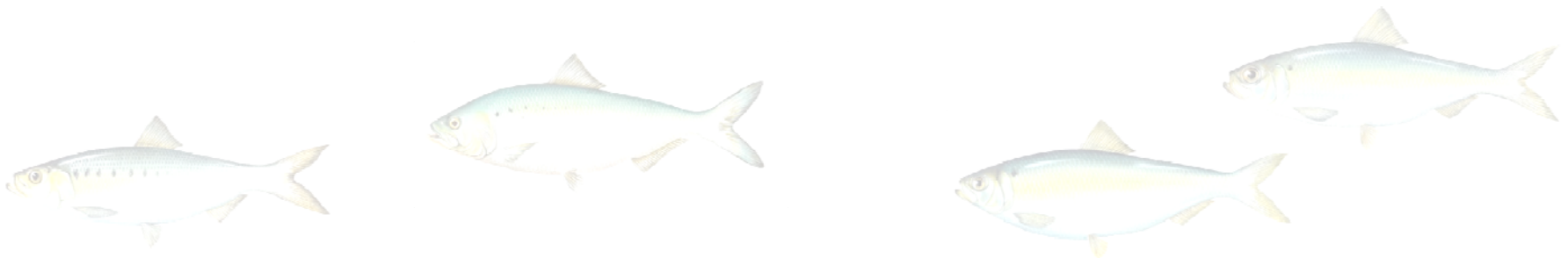
- Evidence of regional stock structure; exact boundaries difficult to distinguish
- Ocean phase should be considered a mixed stock
- Evidence to support regional differences in migration patterns





Extinction Risk

- One stock complex
- Five stock complexes for alewife
 - Canada, Northern NE, Southern NE, Mid-Atlantic, Carolina
- Five stock complexes for blueback herring
 - Canada, Northern NE, Southern NE, Mid-Atlantic, and Southern





Extinction Risk

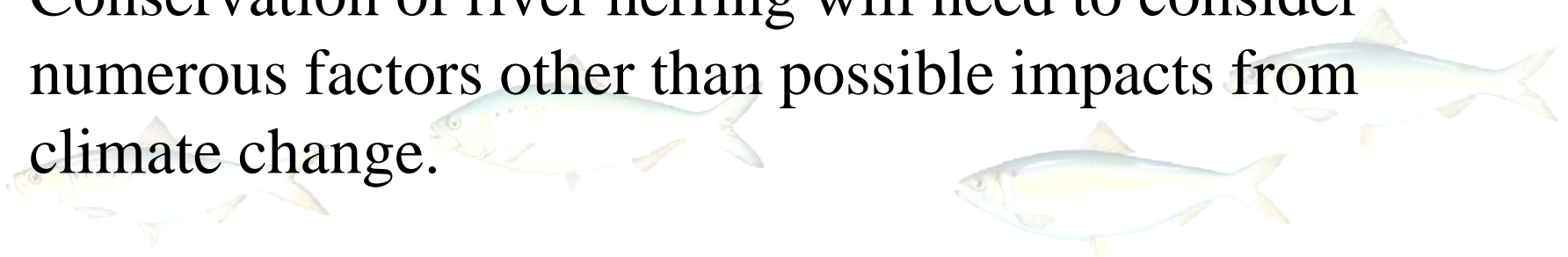
- Recommended population viability analysis with the MARSS (Multivariate Auto-Regressive State Space) approach
- Included attempted preliminary analysis using the NMFS spring and fall trawl survey data for the coastwide population over 100 years.
 - Analysis did not produce realistic confidence intervals.
 - Model will be modified.





Climate Change

- Limiting factors may vary across the full distributional range for both species.
 - Temperature is an important spawning and migration cue for the species
 - Increased temperature could lead to substantial habitat reduction in Northeast, and increased habitat in Southeast
 - Concern over sea level rise and decreased water flows
 - Northern range expansion may occur
- Conservation of river herring will need to consider numerous factors other than possible impacts from climate change.





Peer Review Report

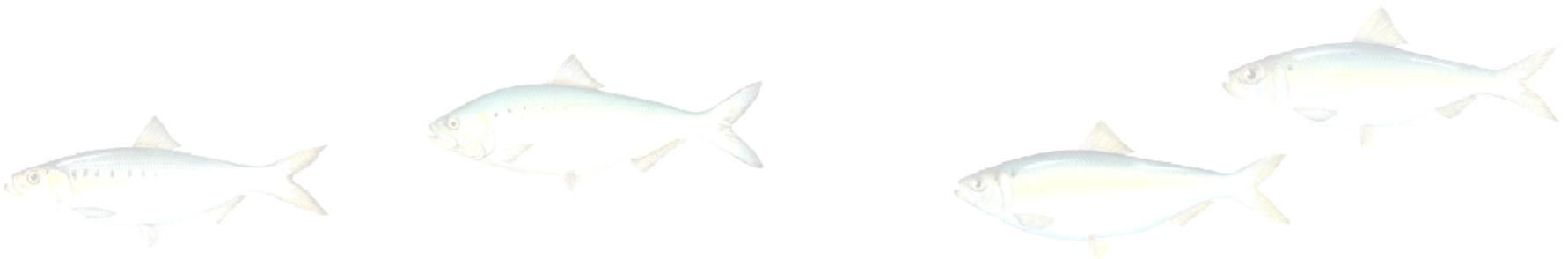
- Stock Structure Report – based on the best available science
 - “Among data sources, genetic evidence was the most coherent and robust available”
- Extinction risk Report– based on best available science
 - “Deficient in some areas”
 - Landlocked populations
- Climate change – peer review report not published yet





Timeline

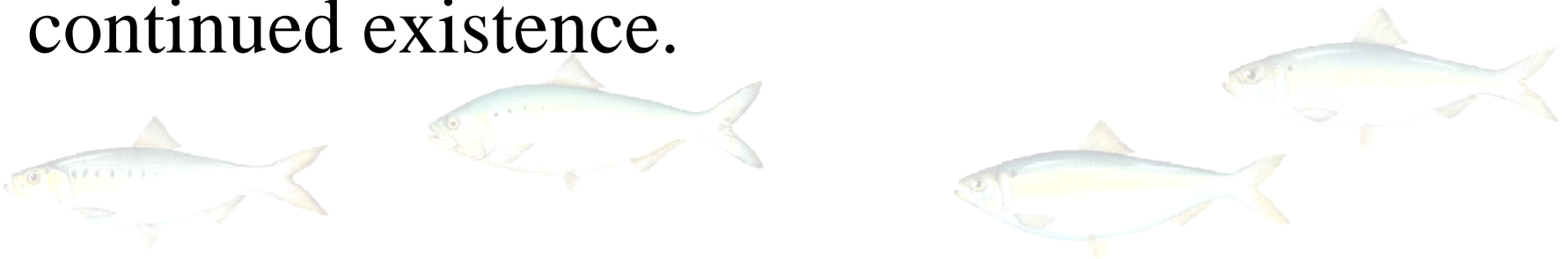
- Proposed rule expected August 6, 2012
- NMFS filed for and was granted an extension
- If the proposed rule published in November the public comment period may not still be open during the February Board meeting.





Five Factors for Listing

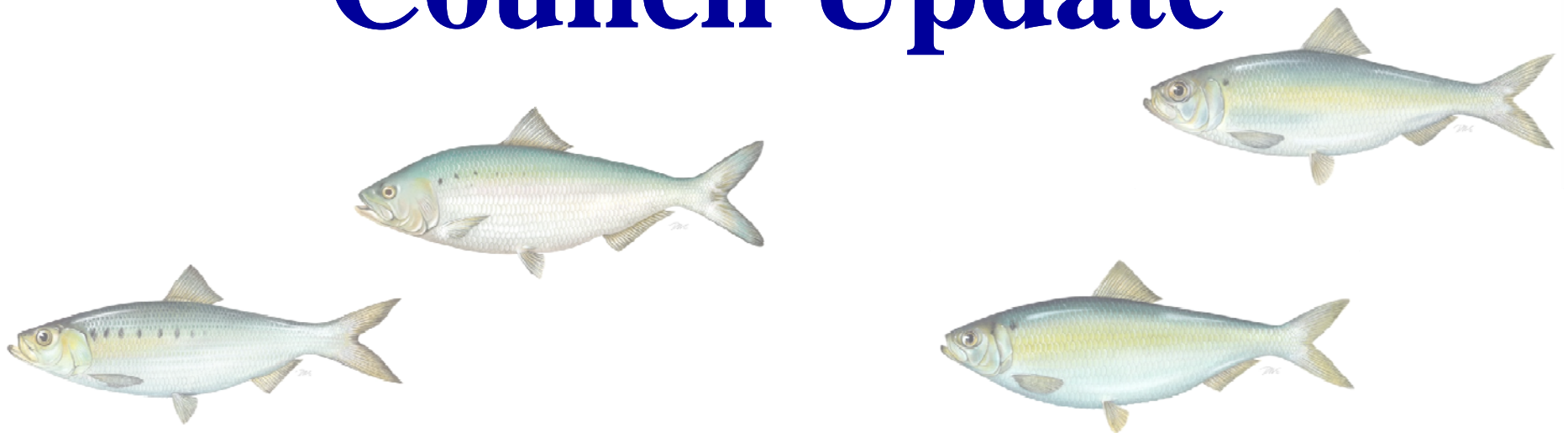
- Present or threatened destruction, modification, or curtailment of habitat
- Overutilization for commercial, recreational, scientific, or educational purposes
- Disease or predation
- Inadequacy of existing regulatory mechanisms
- Other natural or manmade factors affecting its continued existence.





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Council Update





Council Plans

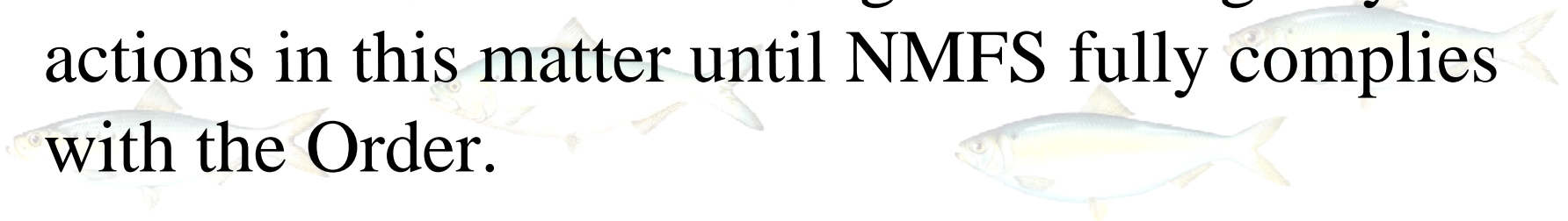
- **NEFMC Amendment 5** - Final EIS submitted
- **MAFMC Amendment 14** – Final EIS submitted





Am4 Federal Court Ruling

- Lawsuit filed April 2011
 - Claim 1) defendants violated the MSA and APA by failing to include SRH as stock in the fishery and create catch limits for them 2) failed to set adequate ACL/AMs for Atl. Herring
- Ruling orders that Amendment 4 is vacated (null), effective one year from now
- The court will retain oversight of the Agency's actions in this matter until NMFS fully complies with the Order.





Federal Court Ruling

- Requires NMFS and NEFMC to review the most recent science and consider a full suite of protections for SRH
- Gives NMFS one year to take action to minimize the bycatch of SRH
- Orders NMFS to consider new approaches for setting the allowable catch for sea herring that accounts for its role as a forage species





Federal Court Ruling

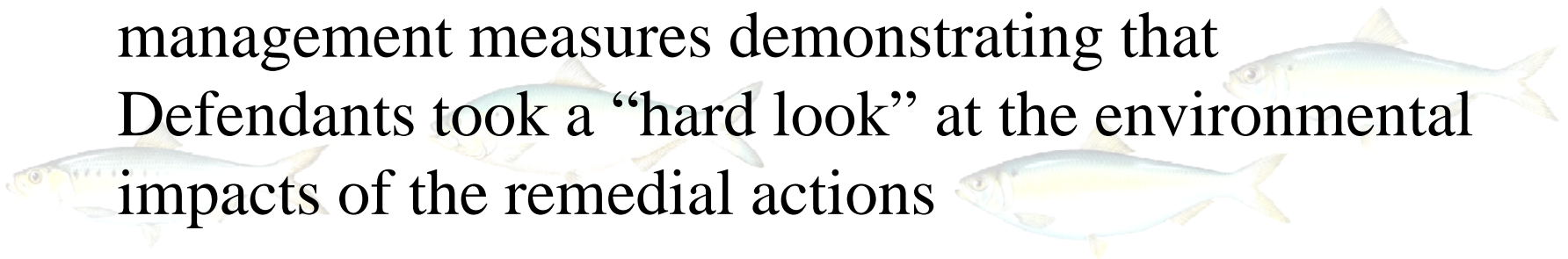
- One month:
 - NMFS will provide the court an explanation of whether Am4's definition of the fishery complies with the MSA (**COMPLETED**)
 - NMFS will send a letter to NEFMC recommending the Council consider SRH as a stock in the fishery, based upon:
 - 2012 RH and 2007 Shad Stock Assessment
 - NMFS's 2011 positive 90 Day Finding (**COMPLETED**)





Federal Court Ruling

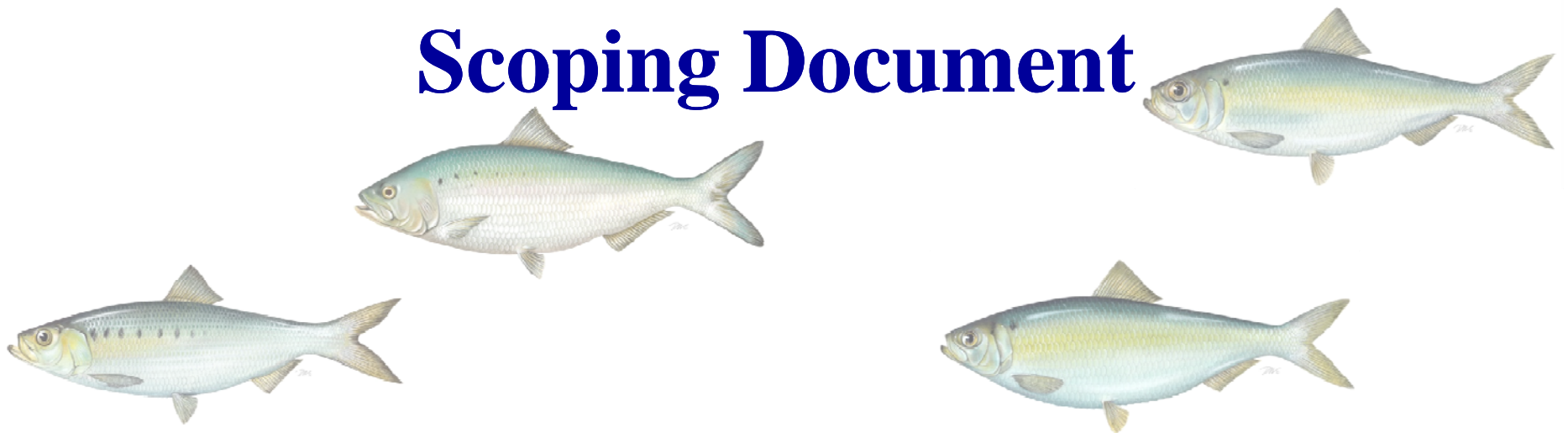
- Six Months:
 - NMFS shall file with the Court a status report describing the progress on the actions ordered
- One year:
 - NMFS will provide to the court an explanation of whether the Atlantic herring FMP minimizes bycatch to the extent practicable, including a completed NEPA analysis for the 2013-15 specifications and management measures demonstrating that Defendants took a “hard look” at the environmental impacts of the remedial actions





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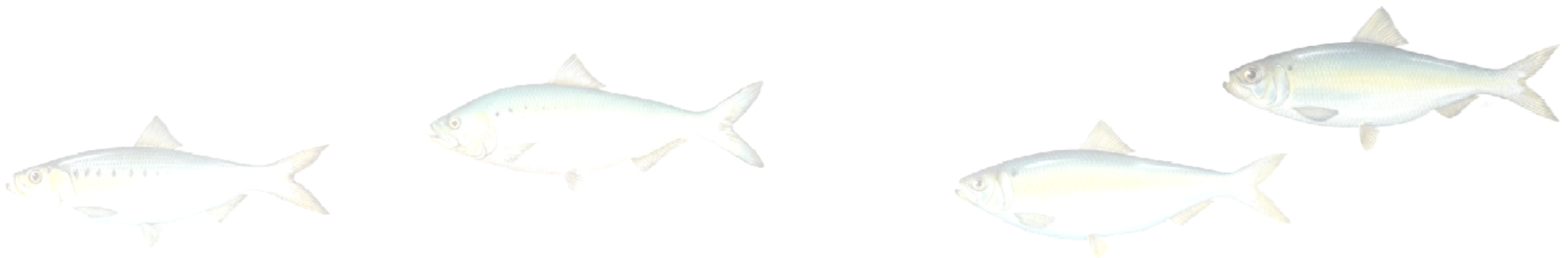
MAFMC Amendment 15 Scoping Document





MAFMC Management of SRH

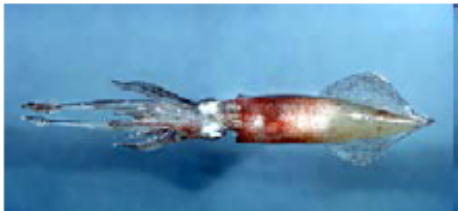
- MAFMC could manage SRH through a new SRH FMP or by adding SRH to the MSB FMP
- If the Council directly managed SRH under an FMP then the required and discretionary provisions of the MSA would apply



In the Plan...



Atlantic Mackerel



Longfin Squid



Illex Squid



Butterfish

Could be in the Plan...



Blueback Herring



Alewife



American Shad

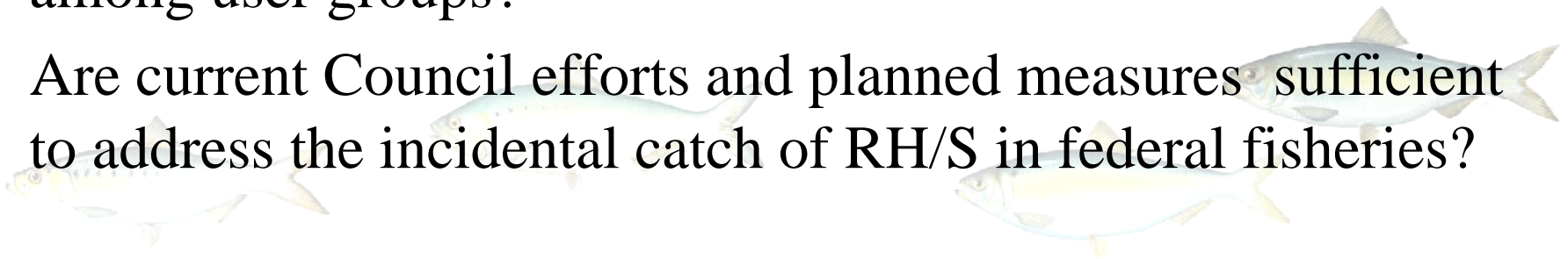


Hickory Shad



Input Sought

- Is the existing management framework sufficient or insufficient?
- Could a Federal FMP improve or maintain the condition of SRH stocks?
- Is the fishery already adequately managed by states, state/Federal programs, Federal regulations ,or by industry self-regulation?
- Could an FMP resolve competing interests and conflicts among user groups?
- Are current Council efforts and planned measures sufficient to address the incidental catch of RH/S in federal fisheries?





Input Sought

- At what scale should management occur?
- What management units are appropriate (biological, geographical, economical, technical, social, ecological)?
- Are there specific approaches how the MAFMC would implement the required provisions of the MSA to directly manage SRH stocks?
- If the MAFMC ends up managing RH/S, can the MAFMC and ASMFC fully accomplish management of SRH throughout its range without doing a joint FMP with the NEFMC?



Timeline

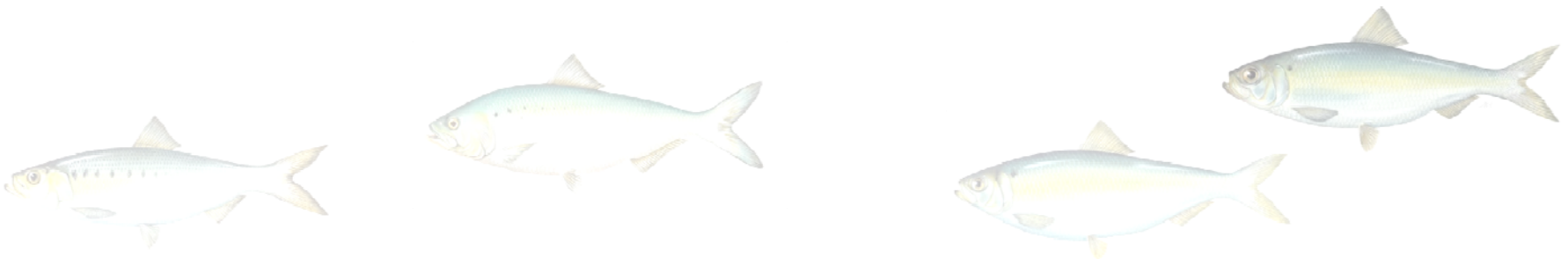
- Initiated June 2012
- Scoping and public hearings Nov 2012
- FMAT develops alternatives and begins drafting DEIS December 2012
- DEIS preferred alternatives selected Aug 2013
- DEIS public hearings Nov 2013
- Preferred alternatives for submission selected April 2014
- Final rule effective Jan 2015





ASMFC Comment

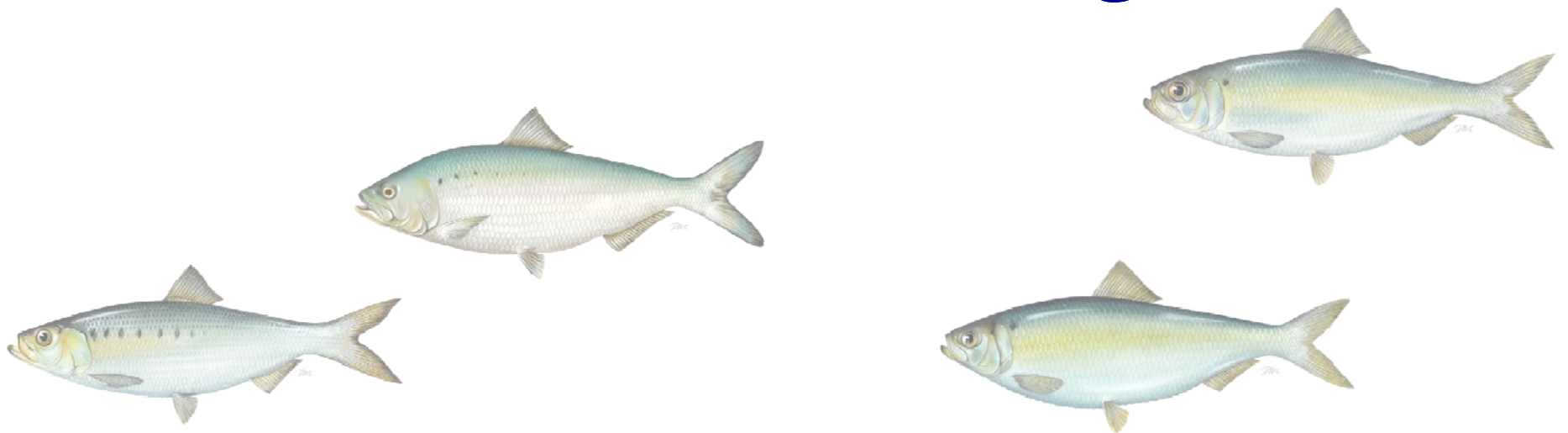
- Public Comment period will not occur during an ASMFC Board meeting.
- Board will need to determine if comments will be submitted to the Council and, if so, how will those comments be developed if done outside of this meeting





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SRH Sustainable Fishing Plans





Massachusetts – Shad

- Close all fisheries outside of the Merrimack River and Connecticut Rivers
 - lower the bag limit from 6 fish per angler per day to 3 fish per angler per day in the Merrimack and Connecticut Rivers.
- TC would encourage research to document the presence of spawning shad above the Essex Dam.
- TC recommended approval of the plan





Connecticut - Shad

- Connecticut is proposing the continuation of the commercial and recreational fisheries in the Connecticut River.
 - Commercial fisheries are prohibited in all other systems in Connecticut and will remain prohibited. Systems other than the Connecticut River will become catch and release for American shad.
- TC recommends plan be considered for approval by the Board





Virginia - Shad

- Plan is similar to bycatch request the Board approved from 2006 – 2011.
 - limited bycatch allowance of American shad for 2013 - 2017
- TC recommends approval of the plan with the following changes:
 - Permit cap lowered from 50 to 30
 - Monitor 500 fish harvest cap and adjust as necessary in future seasons





Rhode Island – River Herring

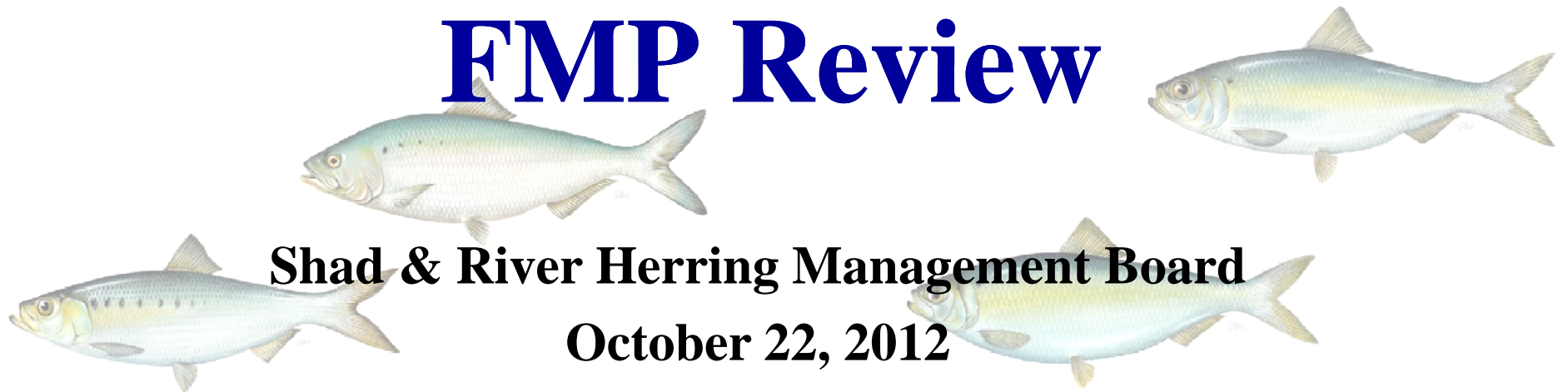
- Removed freshwater portion of the proposal
- 5% bycatch allowance proposed in Atlantic herring fishery
 - Mandatory participation in the SMAST monitoring program
 - 2011 Atlantic herring fishery took 31,622 pounds (79,056 fish) of alewife
- TC recommended approval of the plan





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Shad & River Herring FMP Review



Shad & River Herring Management Board

October 22, 2012



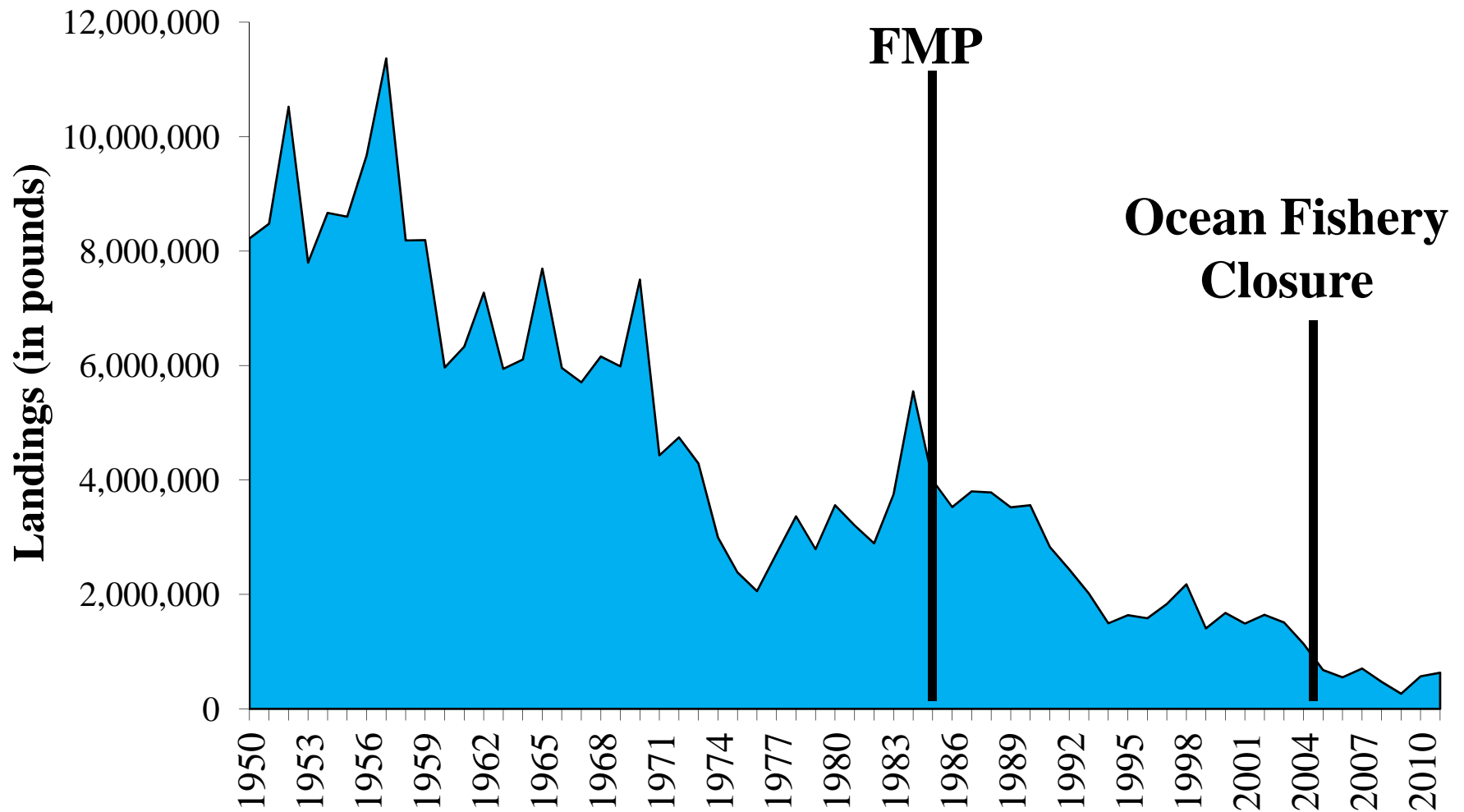
Status of the Stocks

- **American shad: 2007 Benchmark stock assessment – stocks are currently at all time lows and do not appear to be recovering**
- **Hickory shad: status unknown**
- **River Herring: 2012 Benchmark stock assessment – Depleted**





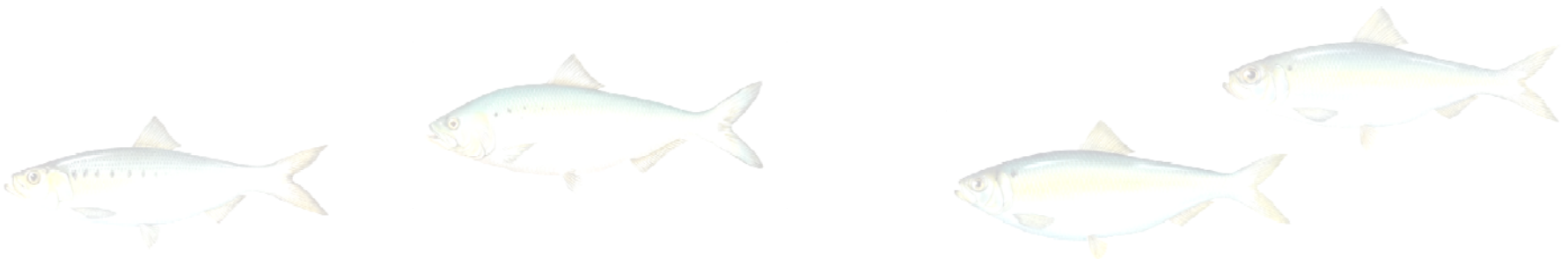
American Shad Commercial Landings





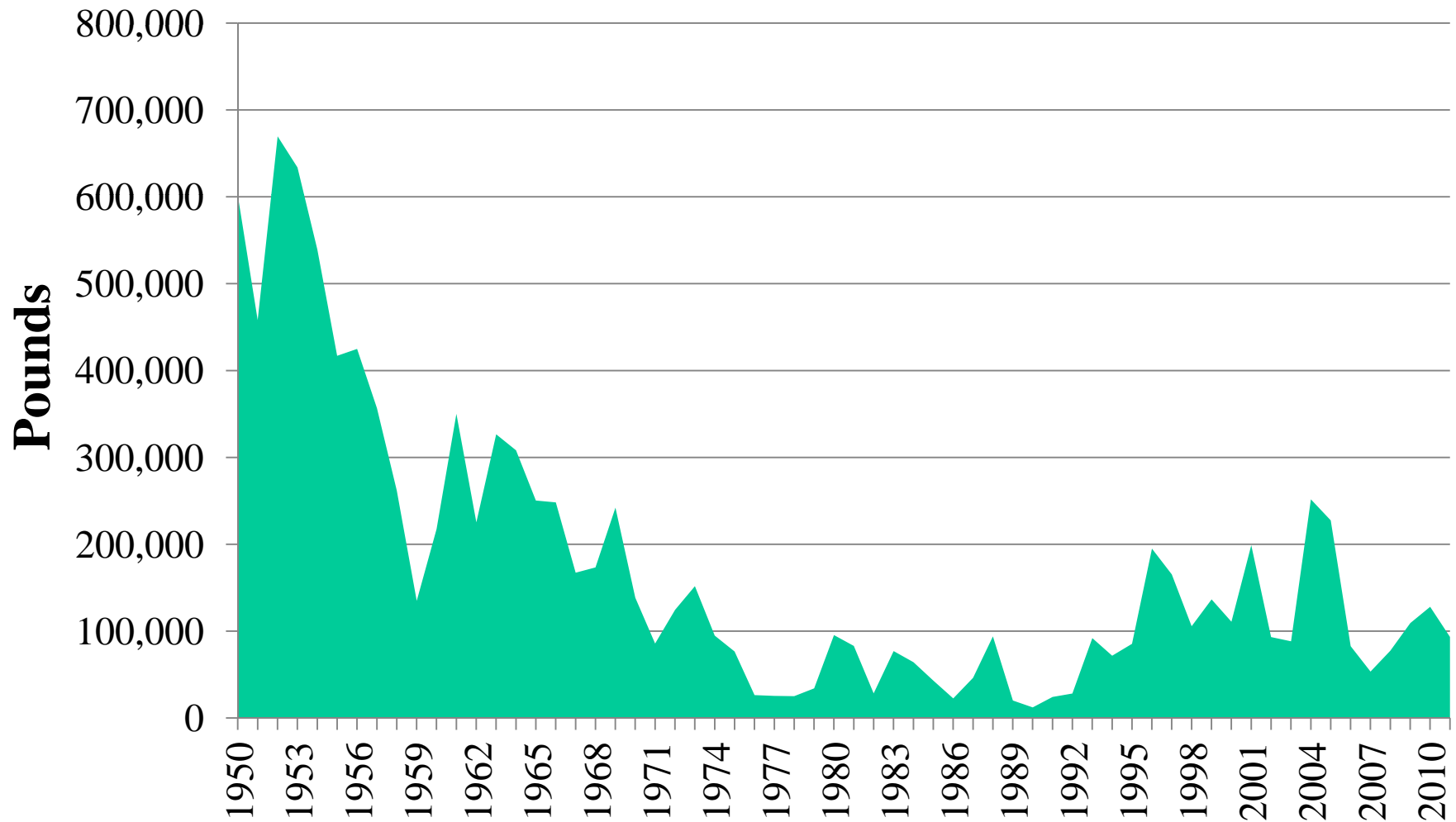
American Shad Fisheries

- **Ocean Bycatch**
 - **Ocean-intercept fishery closed in 2005**
 - **2010: 8,546 pounds**
 - **1.53% of coastwide directed harvest**
 - **Reported from ME, NJ and NC**
 - **Two trips in NJ exceeded the 5% bycatch limit**



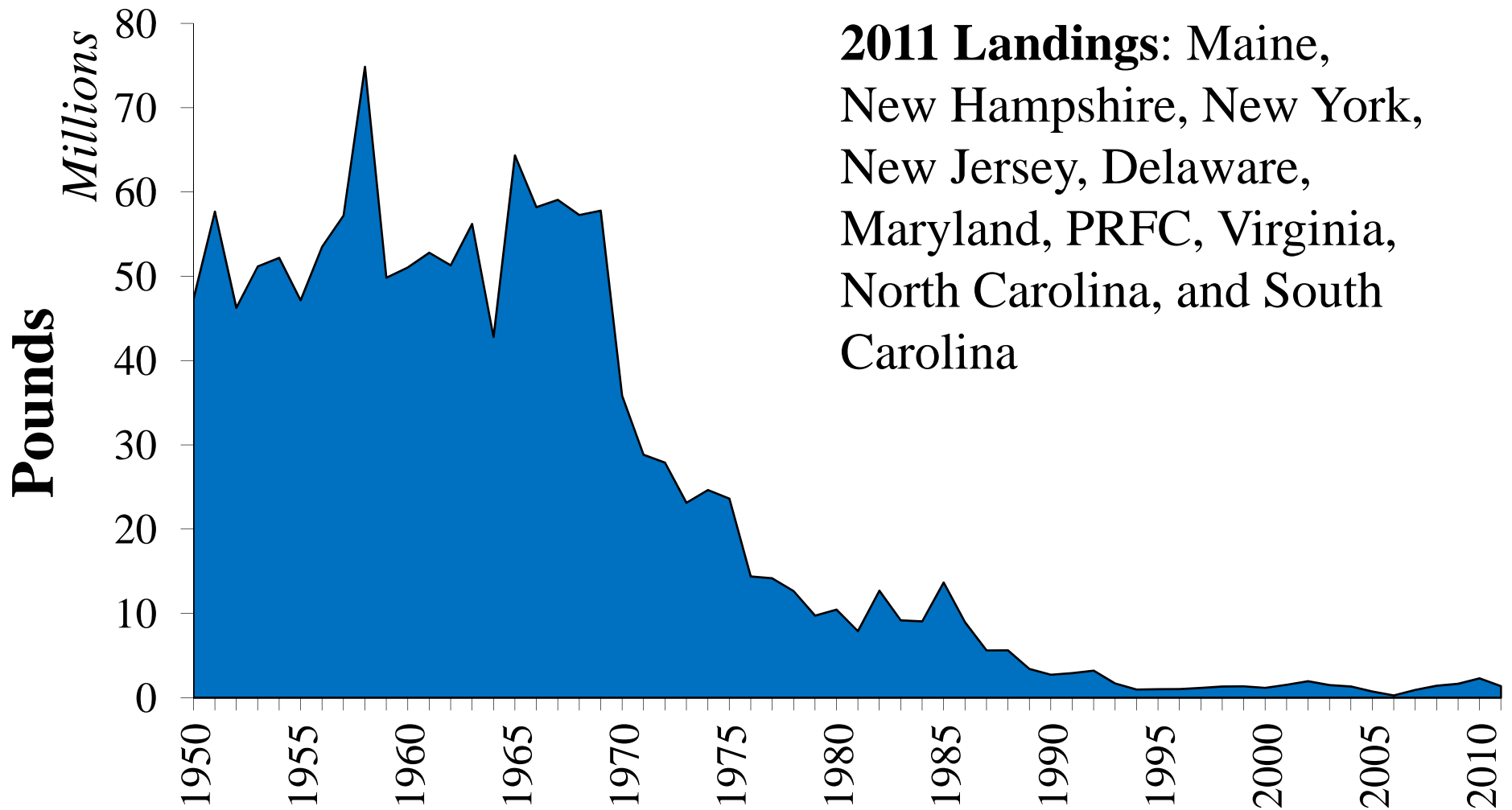


Hickory Shad





River Herring

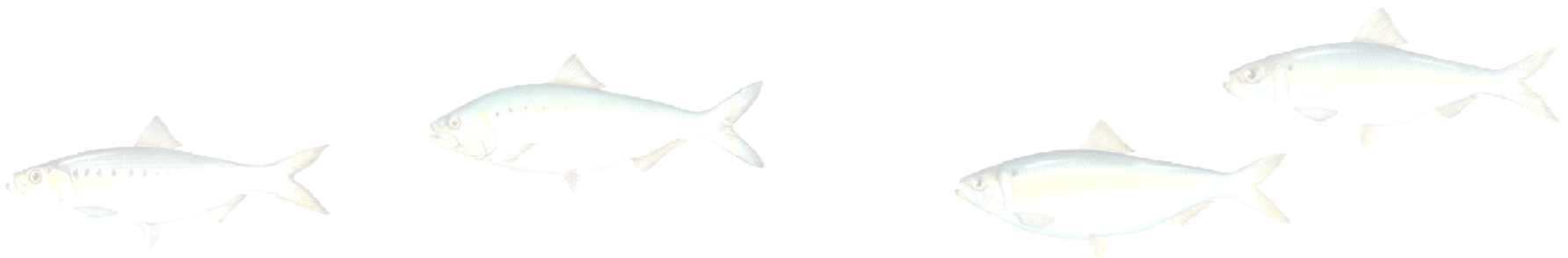


2011 Landings: Maine, New Hampshire, New York, New Jersey, Delaware, Maryland, PRFC, Virginia, North Carolina, and South Carolina



Coastwide Stocking

- **Occurring in: ME, NH, MA, RI, PA, MD, DE, MD, VA, SC and FWS**
- **American Shad: 21 million**
- **Alewife: 700,000**





Sturgeon Interactions

- **58 interactions were reported**
- **RI, NJ, DE, PRFC, VA, NC, SC and GA**
- **All released alive**





De minimis

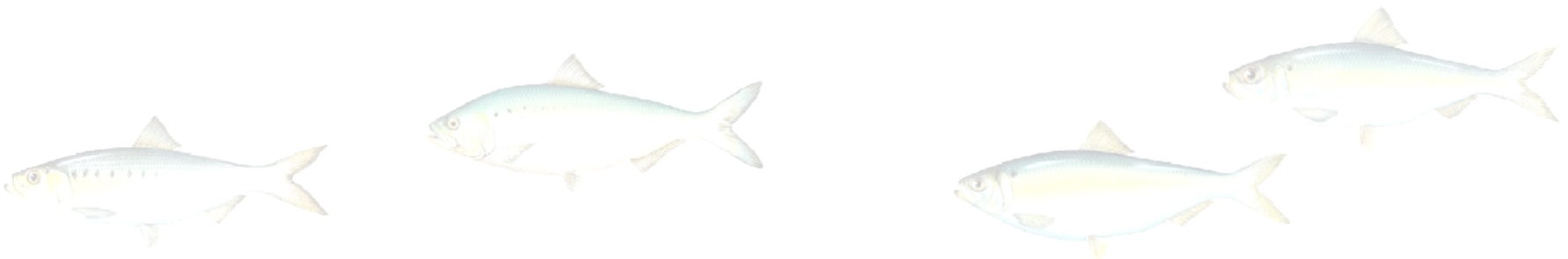
- **Maine**
- **New Hampshire**
- **Massachusetts**





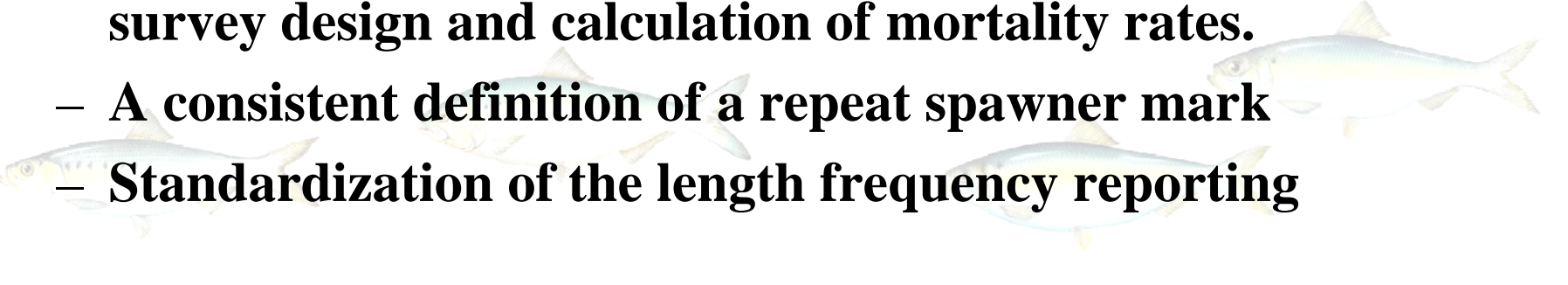
Recommendations

- **Several of the states did not report all of the monitoring requirements listed under Amendments 2 and 3.**
- **The PRT requests that all states check with law enforcement agencies and their freshwater counterparts when reporting poaching, bycatch or other losses.**





Recommendations

- **The PRT requests the Board task the TC with:**
 - **Provide a spreadsheet on how to accurately determine variance.**
 - **A study on the CT sampling methods in order to determine if the sampling of the fishway does in fact yield equivalent results to sampling of the commercial fishery and also to propose a timeframe for future review of this method.**
 - **A study on the minimum sample size recommended in a survey design and calculation of mortality rates.**
 - **A consistent definition of a repeat spawner mark**
 - **Standardization of the length frequency reporting**
- 
- A faint, stylized illustration of four fish swimming horizontally across the bottom of the slide, behind the text.