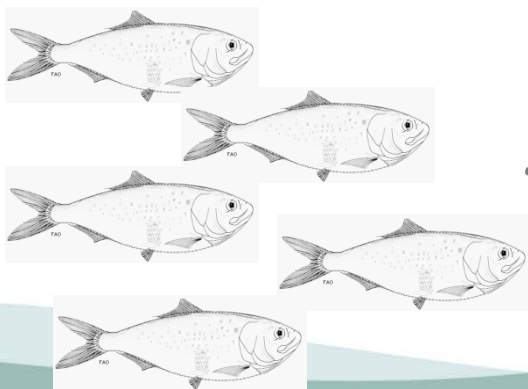




# Consider Extension and Revision to Episodic Events Set Aside Program

Atlantic Menhaden Management Board

May 4, 2016



*Sustainably managing Atlantic Coastal Fisheries*

# Overview



- Consider an extension to the Episodic Event Set Aside Program
  - Review the Program
  - Performance of the program 2013-2015
- Consider a Revision to the Episodic Event Set Aside Program
  - Review proposal from New York



# Episodic Event Set Aside Program



- Board approved a 1% TAC set aside for episodic events through Amendment 2 (December 2012)
- Board tasked Subcommittee of New England states to further develop episodic events program (February 2013).
- Board approved an episodic events set aside pilot program for 2013 (May 2013)
- At Annual meeting 2013, the Board extended program through 2015, and included a provision to rollover unused set aside on November 1.



# Current Eligibility



- New England States (ME – CT)
- States must implement the following:
  - Daily trip level harvester reporting submitted weekly to ASMFC
  - Episodic event harvest must be restricted to state waters only.
  - States must implement a maximum daily trip limit no greater than 120,000 pounds/vessel.



# Declaring Participation



- State monitors landings to determine if an episodic event occurs.
- Episodic events defined as any instances when a qualified state has reached its individual state quota, prior to September 1, and has information indicating the presence of unusually large amounts of menhaden in its state waters.
- If an episodic event is triggered, the state must declare to ASMFC by September 1 that it plans to begin harvesting from the set aside.
- States declaring participation in the episodic event program will not be eligible for *de minimis* status.



# Procedure for Unused Set Aside and Overages



- If an episodic event is not triggered by September 1,
  - quota will immediately be rolled into the overall quota and redistributed to the states based on Amendment 2.
- If an episodic event is triggered by September 1,
  - Any unused set aside by October 31, any remaining quota be rolled into the overall quota and redistributed to the states based on Amendment 2.
- Overage: If the episodic event set aside is exceeded, any overages will be deducted from the next year's episodic event set aside amount.



# Set Aside Performance



| Year | Set Aside (lbs) | Landed (lbs) | % Used | State | Unused Set Aside Reallocated (lbs) |
|------|-----------------|--------------|--------|-------|------------------------------------|
| 2013 | 3,765,491       | -            | -      |       | 3,765,491                          |
| 2014 | 3,765,491       | 295,000      | 8%     | RI    | 3,470,491                          |
| 2015 | 4,142,040       | 1,883,292    | 45%    | RI    | 2,258,748                          |



# Consider Extension of Set Aside Program



- The Episodic Event Set Aside Program was previously extended through Board Action through 2015.
- The Board may consider another extension of the program through Board action at this meeting.
- The Board may also adjust any provisions of the episodic event set aside through Board action





# Overview



- Consider an extension to the Episodic Event Set Aside Program
  - Review the Program
  - Performance of the program 2013-2015
- **Consider a Revision to the Episodic Event Set Aside Program**
  - Review proposal from New York



# New York Proposal



- Request to be included as part of the Episodic Event Set Aside Program
- New York experiencing episodic fish kills in Peconic Bay in both 2015 and 2016
- Fish kills result in enormous clean-up, and socioeconomic impacts
- New York is requesting to land under the set aside
  - Noted geographical proximity to New England



# PRT Review



- PRT Reviewed New York's proposal to evaluate mandatory provisions (1) state only harvest (2) daily trip limit 120K/vessel (3) daily trip level reported weekly
- Recommendations:
  - The daily reporting is critical especially given NY's quota overages in 2014 and 2015 assuming they relate to less-timely reporting.
  - ASMFC may want to consider requesting more frequent than weekly reporting to ASMFC considering 12 vessels at 30,000 lbs/day could land 360,000 lbs daily compared to 4.14 mlb set-aside.



# Board Possible Actions

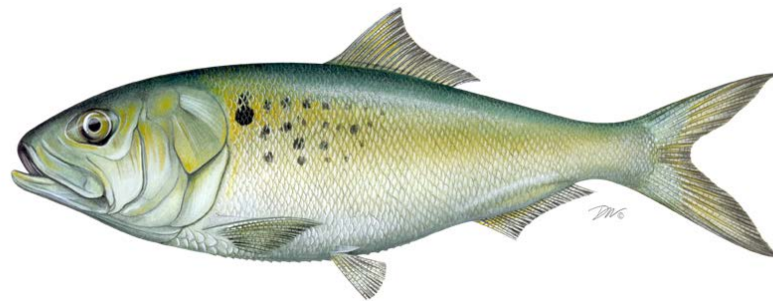


- Consider a revision to the Episodic Event Set Aside Program to include New York





# Draft Addendum I for Public Comment



Atlantic Menhaden Management Board  
May 4, 2016

***Vision: Sustainably Managing Atlantic Coastal Fisheries***

# Timeline



- Feb: Board initiated Draft Addendum I to consider revision to Amend 2 bycatch allowance
- May: Board reviews Draft Addendum I for Public Comment
- May-July: Public Comment Period
- Aug: Board Reviews Public Comment and selects final options
- TBD: Provisions implemented

# Menhaden Bycatch Provision



- How it works:
  - All landings prior to a state reaching its quota count toward the quota
  - Once a state reaches its quota it closes its fishery and can land 6,000 pounds per vessel/day as bycatch
  - However, bycatch provision does not allow two individuals to fish from same vessel to land up to 12,000 pounds bycatch
  - They must fish separately and land 6,000 pounds each

# Statement of the Problem



- This creates inefficiencies because in the Ches Bay it is common during open season for pound netters to pool resources and fish together
- PDT examined all stationary multi-species gear to examine if other gear types may benefit from pooling resources

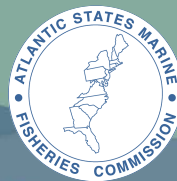


# Performance of Fishery



- From 2013-2015 bycatch averaged 5.63 million pounds
  - Ranged from 4.38-6.58 mil pounds.
- This represents approx 1-2% of coastwide landings
- By Location:
  - Ches Bay accounts for 81% of bycatch total
  - NY, NJ, FL, DE, RI account for remaining
- By Gear:
  - 61% landed by pound nets
  - 24% landed by anchored/staked gillnets

# 2013-2015 Bycatch Analysis



| State/Jurisdiction                    | MD               | VA               | PRFC           | NY             | NJ**           | FL             | DE            | RI*           | Sum lbs (NonConf) | % of Total |
|---------------------------------------|------------------|------------------|----------------|----------------|----------------|----------------|---------------|---------------|-------------------|------------|
| <b>Stationary Gears While Fishing</b> |                  |                  |                |                |                |                |               |               |                   |            |
| Pound net                             | 2,306,552        | 122,913          | 884,843        | 128,854        | C              | -              | -             | 57,231        | <b>3,500,393</b>  | 60.9%      |
| Anchored/stake gill net               | 5,131            | 1,242,512        | -              | -              | 100,202        | C              | 28,998        | C             | <b>1,376,843</b>  | 24.0%      |
| Pots                                  | 10,001           | -                | -              | C              | -              | C              | C             | -             | <b>10,001</b>     | 0.2%       |
| Fyke nets                             | C                | C                | -              | -              | C              | -              | -             | -             | <b>918</b>        | 0.0%       |
| <b>Mobile Gears While Fishing</b>     |                  |                  |                |                |                |                |               |               |                   |            |
| Cast Net                              | C                | -                | -              | 183,137        | C              | 163,776        | -             | C             | <b>346,913</b>    | 6.0%       |
| Drift Gill net                        | 16,082           | 57,794           | -              | 18,175         | 129,620        | -              | 66,117        | -             | <b>287,788</b>    | 5.0%       |
| Seines Haul/Beach                     | C                | 5,119            | -              | 206,587        | -              | -              | -             | -             | <b>211,706</b>    | 3.7%       |
| Trawl                                 | -                | -                | -              | 9,733          | C              | -              | -             | C             | <b>9,733</b>      | 0.2%       |
| Hook & Line                           | C                | -                | -              | -              | -              | C              | -             | C             | <b>278</b>        | 0.0%       |
| <b>Sum lbs (NonConf)</b>              | <b>2,337,766</b> | <b>1,428,339</b> | <b>884,843</b> | <b>546,485</b> | <b>229,822</b> | <b>163,776</b> | <b>95,116</b> | <b>57,231</b> | <b>5,744,572</b>  |            |
| <b>% of Total</b>                     | <b>40.7%</b>     | <b>24.9%</b>     | <b>15.4%</b>   | <b>9.5%</b>    | <b>4.0%</b>    | <b>2.9%</b>    | <b>1.7%</b>   | <b>1.0%</b>   |                   |            |

# Performance of Fishery



- From 2013-2015 a total of 12,750 trips landed under bycatch allowance
- 8,979 trips were from stationary gears
- Ches Bay accounts for 88% of all stationary gear trips
- Of those trips in the Chesapeake Bay
  - Approx 40% are from MD and PRFC pound nets
  - Approx 59% are from anchored/staked gill nets in VA
- Of stationary trips 60% landed less than 1,000 pounds
- Pound nets were only notable gear that accounted for trips exceeding 3,000 pounds

# 2015 Bycatch Analysis



| Bins (LBS)         | VA          | MD          | PRFC        | NJ         | NY         | DE         | RI*        | FL        | Total Trips  | Total Bin% |
|--------------------|-------------|-------------|-------------|------------|------------|------------|------------|-----------|--------------|------------|
| 1-1000             | 71%         | 35%         | 31%         | 85%        | 88%        | 91%        | 53%        | 100%      | <b>5,350</b> | 59.6%      |
| 1001-2000          | 13%         | 12%         | 21%         | 10%        | 9%         | 4%         | 14%        | 0%        | <b>1,176</b> | 13.1%      |
| 2001-3000          | 7%          | 8%          | 15%         | 3%         | C          | 4%         | 18%        | 0%        | <b>716</b>   | 8.0%       |
| 3001-4000          | 3%          | 7%          | 10%         | 1%         | 3%         | 1%         | 4%         | 0%        | <b>426</b>   | 4.7%       |
| 4001-5000          | 3%          | 7%          | 13%         | C          | C          | 1%         | 3%         | 0%        | <b>441</b>   | 4.9%       |
| 5001-6000          | 2%          | 14%         | 10%         | C          | C          | 0%         | 6%         | 0%        | <b>519</b>   | 5.8%       |
| 6000+              | 0%          | 16%         | 0%          | C          | C          | 0%         | 3%         | 0%        | <b>351</b>   | 3.9%       |
| <b>Total Trips</b> | <b>4672</b> | <b>2057</b> | <b>1138</b> | <b>477</b> | <b>345</b> | <b>165</b> | <b>102</b> | <b>23</b> | <b>8,979</b> |            |
| Total Trips %      | 52.0%       | 22.9%       | 12.7%       | 5.3%       | 3.8%       | 1.8%       | 1.1%       | 0.3%      |              |            |

# 2015 Bycatch Analysis



| Bins (LBS)         | VA          | MD          | PRFC        | NJ         | NY         | DE         | RI*        | FL        | Total Trips  | Total Bin% |
|--------------------|-------------|-------------|-------------|------------|------------|------------|------------|-----------|--------------|------------|
| 1-1000             | 71%         | 35%         | 31%         | 85%        | 88%        | 91%        | 53%        | 100%      | <b>5,350</b> | 59.6%      |
| 1001-2000          | 13%         | 12%         | 21%         | 10%        | 9%         | 4%         | 14%        | 0%        | <b>1,176</b> | 13.1%      |
| 2001-3000          | 7%          | 8%          | 15%         | 3%         | C          | 4%         | 18%        | 0%        | <b>716</b>   | 8.0%       |
| 3001-4000          | 3%          | 7%          | 10%         | 1%         | 3%         | 1%         | 4%         | 0%        | <b>426</b>   | 4.7%       |
| 4001-5000          | 3%          | 7%          | 13%         | C          | C          | 1%         | 3%         | 0%        | <b>441</b>   | 4.9%       |
| 5001-6000          | 2%          | 14%         | 10%         | C          | C          | 0%         | 6%         | 0%        | <b>519</b>   | 5.8%       |
| 6000+              | 0%          | 16%         | 0%          | C          | C          | 0%         | 3%         | 0%        | <b>351</b>   | 3.9%       |
| <b>Total Trips</b> | <b>4672</b> | <b>2057</b> | <b>1138</b> | <b>477</b> | <b>345</b> | <b>165</b> | <b>102</b> | <b>23</b> | <b>8,979</b> |            |
| Total Trips %      | 52.0%       | 22.9%       | 12.7%       | 5.3%       | 3.8%       | 1.8%       | 1.1%       | 0.3%      |              |            |

# Performance of Fishery



## In Summary:

- Bycatch landings are largely from pound net fisheries in MD and PRFC
- As well as anchored gill net fishery in Virginia
- Pound net trips are landing menhaden in amounts that would lend to cooperative fishing behavior
- However, there are other stationary multi-species gear types in all other jurisdictions that land menhaden as bycatch.

# Stationary Gears and Landings Comp



- PDT examined catch composition by gear
  - Atl. Menhaden averaged 71% catch in weight for all gears combined
  - Expected because only considers trips catching menhaden
- Pound nets are fixed staked or anchored nets that passively catch menhaden in large schools
- Staked gill nets usually remain in same fixed location
- Anchored gill nets are stationary while set, but can move daily.
- Gill net catch depends on areas being fished
- Pots are not multi-species gear and are usually targeting specific species

# Stock Status and TC Review



- Stock is not overfished and overfishing is not occurring
- TC previously reviewed conservation equivalency from MD and PRFC where they originally proposed modification to bycatch allowance to allow fishing together
- TC agreed that proposal from MD and PRFC would not adversely impact biological status of menhaden because
  - Current healthy stock status
  - Limited amount of bycatch allowance landings
  - MD and PRFC pound net fisheries are limited entry



# 3. Management Actions



- Revises Section 4.2.1.7 of Amendment 2:
- Option A: Status quo
  - Bycatch allowance shall not exceed 6,000 pounds per day/vessel
- Option B: Working together permitted for all stationary multi-species gears.
  - Two authorized individuals fishing stationary multi-species gears are permitted to work together to land up to 12,000 pounds per day.
  - Stationary multi-species gears are defined as: pound nets, anchored/staked gill nets, and fyke nets.
  - Excludes pots because it is not a multi-species gear

# 3. Management Actions



- Option C: Working together permitted for all stationary multi-species gears, operating in limited entry fisheries.
  - Two authorized individuals fishing stationary multi-species gears are permitted to work together to land up to 12,000 pounds per day.
  - Stationary multi-species gears are defined as: pound nets, anchored/staked gill nets, and fyke nets which are limited entry
  - Excludes pots because it is not a multi-species gear

| State/Jurisdiction | Bycatch Trip Limit (lbs) | State further define non-directed fisheries?                                    | Stationary Gear Types that are Limited Entry  |
|--------------------|--------------------------|---|---|
| ME                 | 6,000                    | All gears allowed   | None that catch menhaden  |
| NH                 | 6,000                    | All trips all year regardless of gear type limited to <6,000 lbs                | None that catch menhaden  |
| MA                 | 1,000                    | Menhaden harvest not to exceed 5% of trip's entire harvest, by weight           | Lobster pot, fish pot, gillnet  |
| RI                 | 6,000                    | Non-direct gear are defined as cast nets, floating fish traps, and rod and reel | Floating fish traps, lobster pots, and gillnets are limited entry   |
| CT                 | 6,000                    | All trips all year regardless of gear type limited to <6,000 lbs                | None that catch menhaden  |
| NY                 | 6,000                    | All gears except purse seine and hook and line                                  | None that catch menhaden  |
| NJ                 | 6,000                    | All gears allowed   | Cap on license numbers for all gears; non-license holders limited to 100 lb per day   |
| DE                 | N/A                      | bycatch fishery only. no capacity for >6,000 lbs                                |   |
| MD                 | 6,000 PN, 1,500 other    | Pound nets, but 1,500 limit for other gears                                     | All gear is limited entry, no anchor gillnets are allowed in MD portion of Chesapeake Bay   |
| PRFC               | 6,000                    | Pound nets only   | Pound nets  |
| VA                 | 6,000                    | All non-purse seine bait gears  | Cap on the number of pound nets that can be set. Gill net permits are limited entry to allow individuals to set more than 6,000 feet of gill nets per vessel. |
| NC                 | 6,000                    | Through proclamation when needed  | None that catch menhaden  |
| SC                 | N/A                      | No notable landings history   | N/A   |
| GA                 | N/A                      | No notable landings history   | N/A   |

# 3. Management Actions



- Option D: Working together permitted for pound nets only.
  - Two authorized individuals fishing pound nets are permitted to work together to land up to 12,000 pounds per day.
  - Two individual fishing together and reaching current bycatch limit is most commonly documented for pound nets
  - Supported by 2013-2015 bycatch data

# 4. Compliance



- States may implement any applicable changes to their bycatch allowance immediately upon final Addendum approval by the Board
- Note, the Board also initiated Amend 3 to consider ecosystem-based reference points and revisit state-by-state allocations scheduled for completion for 2018.
- Any options selected in Addendum I may be changed through Amendment 3.



# Atlantic Menhaden Stock Projection Setup

May 5, 2016

Alexandria, Virginia



[georgiaconservancy.org](http://georgiaconservancy.org)

# Projections Setup



- Use BAM and follow projection methodology detailed in peer reviewed 2015 stock assessment.

## Assumptions

- functional forms used to describe population dynamics, selectivity, recruitment
  - e.g., dome shaped selectivity
- Median recruitment over time
- Allocation stays same between Bait and Red
- Fishing mortality occurs throughout the year
- Does the Board want the TC to revisit these assumptions or keep them the same?

# Projections Setup



## Catch Input:

- 2014: TAC was 170,800 mt
- 2015 & 2016: TAC was increased 10% to 187,880 mt
  - TC can update projections using actual catch from 2014 and 2015, and assumed catch in 2016

## Projection Timeframe:

- Was short term 2015 – 2017
- Reason: maintains at least one age class within projections
- TC can run projections beyond 2017 but will not be informed by observed data (terminal year of assessment was 2013)



# Projection Runs from 2015



1. Status quo in 2015 was: 170,800 mt
2. Other runs: 5, 10, 15, 20% less the reduction from historical landings time period
3. Constant TAC to achieve F target in 2017
  - Required assumption about percent risk

|   | TAC (mt) | 2015 | 2016  | 2017  |
|---|----------|------|-------|-------|
| Percent Risk<br>of exceeding<br>$F_{\text{target}}$ | 170,800  | 50%  | 23%   | 3%    |
|   | 181,475  | 57%  | 28%   | 9%    |
|   | 192,150  | 62%  | 35.5% | 15%   |
|   | 202,825  | 68%  | 42%   | 21.5% |
|   | 213,500  | 73%  | 49.5% | 27.5% |
| Achieve F Target                                    | 246,900  | 84%  | 72%   | 50%   |

# Projection Runs for 2017?



- TC can update projections to show different catch scenarios
  1. Status quo in 2016: 187,880 mt
  2. The Board can provide guidance on specific TAC level desired for use in projections.
  3. The Board can specify a TAC that will achieve F target in 2017
    - Board needs to choose risk level
    - TC previously used 50% because Board did not define risk in 2015

# Projection caveats



- Projections are highly uncertain
- Did not include structural (model) uncertainty
- Conditional on set of functional forms (e.g., selectivity, recruitment)
- Fisheries were assumed to continue at current proportions of allocation (Bait and Reduction) using current selectivity
  - New mgmt regs that alter the proportions or selectivities would likely affect projection results

# Projection caveats



- If future recruitment is characterized by runs of large or small year classes, possibly due to environmental or ecological conditions, stock trajectories may be affected
- Projections apply the Baranov catch equation
  - Assumes mortality occurs throughout the year
  - If assumption is violated (e.g., seasonal closures), additional, unquantified uncertainty will be introduced into the projection results

# Projection Runs from 2015



1. 213,500 mt = average catch from 2009-2011 prior to implementation of Amendment 2
2. 202,825 mt = if 5% reduction from 2009-2011 average catch
3. 192,150 mt = if 10% reduction from 2009-2011 average catch
4. 181,475 mt = if 15% reduction from 2009-2011 average catch
5. 170,800 mt = status quo; 20% reduction from 2009-2011 average catch
6. TAC that has a 50% probability of achieving F target in 2017
  - constant catch approach
7. TAC that has a 50% probability of achieving F target in every year
  - constant F approach
- Board decided to increase TAC by 10% to 187,880 mt

# Projection Tables Will Be Updated



| Percent Risk<br>of exceeding<br>$F_{\text{target}}$ | TAC (mt) | 2015 | 2016  | 2017  |
|---|----------|------|-------|-------|
|   | 170,800  | 50%  | 23%   | 3%    |
|   | 181,475  | 57%  | 28%   | 9%    |
|   | 192,150  | 62%  | 35.5% | 15%   |
|   | 202,825  | 68%  | 42%   | 21.5% |
|   | 213,500  | 73%  | 49.5% | 27.5% |

| Percent Risk<br>of exceeding<br>$F_{\text{threshold}}$<br>(Overfishing) | TAC (mt) | 2015 | 2016  | 2017 |
|---|----------|------|-------|------|
|   | 170,800  | 1.5% | 0%    | 0%   |
|   | 181,475  | 2%   | 0%    | 0%   |
|   | 192,150  | 2%   | 0%    | 0%   |
|   | 202,825  | 3%   | <0.5% | 0%   |
|   | 213,500  | 4%   | <1%   | 0%   |

# Projection 6



- The TAC that has a 50% probability of achieving  $F$  target in 2017 (constant catch approach) was 246,900 mt
- TAC would be held constant for a three year time period (2015-2017).

| 246,900 mt TAC                                   | 2015 | 2016 | 2017 |
|--|------|------|------|
| Percent risk of exceeding $F_{\text{target}}$    | 84%  | 72%  | 50%  |
| Percent Risk of exceeding $F_{\text{threshold}}$ | 8.5% | <1%  | 0%   |

# Projection 7



- TAC that has a 50% probability of achieving  $F_{\text{target}}$  in every year (constant F approach)
- Note the TAC would change each year to ensure a 50% probability of maintaining F at the target.

|  | 2015    | 2016    | 2017    |
|--|---------|---------|---------|
| TAC (mt)   | 173,000 | 223,900 | 265,900 |
| Percent risk of exceeding $F_{\text{target}}$    | 50%     | 50%     | 50%     |
| Percent Risk of exceeding $F_{\text{threshold}}$ | 1.5%    | 0%      | 0%      |



# Amendment 2



- Amendment 2 Allocation Percentages (rounded to two decimal places)

| State          | TAC Percentage (%) |
|----------------|--------------------|
| Maine          | 0.04               |
| New Hampshire  | 0                  |
| Massachusetts  | 0.84               |
| Rhode Island   | 0.02               |
| Connecticut    | 0.02               |
| New York       | 0.06               |
| New Jersey     | 11.19              |
| Delaware       | 0.01               |
| Maryland       | 1.37               |
| PRFC           | 0.62               |
| Virginia       | 85.32              |
| North Carolina | 0.49               |
| South Carolina | 0                  |
| Georgia        | 0                  |
| Florida        | 0.02               |

# Allocation Table of Projections 1-6



| MT                     | 170,800     | 181,475     | 192,150     | 202,825     | 213,500     | 246,900     |
|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|
| <b>Pounds</b>          | 376,549,096 | 400,083,415 | 423,617,733 | 447,152,052 | 470,686,370 | 544,320,678 |
| <b>After Set Aside</b> | 372,783,605 | 396,082,580 | 419,381,556 | 442,680,531 | 465,979,506 | 538,877,471 |
| ME                     | 146,787     | 155,962     | 165,136     | 174,310     | 183,484     | 212,189     |
| NH                     | 112         | 119         | 126         | 133         | 140         | 162         |
| MA                     | 3,126,024   | 3,321,400   | 3,516,777   | 3,712,153   | 3,907,530   | 4,518,825   |
| RI                     | 66,779      | 70,952      | 75,126      | 79,300      | 83,473      | 96,532      |
| CT                     | 65,034      | 69,099      | 73,163      | 77,228      | 81,292      | 94,010      |
| NY                     | 206,695     | 219,614     | 232,532     | 245,451     | 258,369     | 298,788     |
| NJ                     | 41,721,164  | 44,328,737  | 46,936,309  | 49,543,882  | 52,151,455  | 60,310,043  |
| DE                     | 49,230      | 52,307      | 55,384      | 58,460      | 61,537      | 71,164      |
| MD                     | 5,116,874   | 5,436,678   | 5,756,483   | 6,076,287   | 6,396,092   | 7,396,698   |
| PRFC                   | 2,314,174   | 2,458,810   | 2,603,446   | 2,748,082   | 2,892,718   | 3,345,256   |
| VA                     | 318,066,790 | 337,945,964 | 357,825,138 | 377,704,313 | 397,583,487 | 459,781,559 |
| NC                     | 1,836,948   | 1,951,757   | 2,066,566   | 2,181,375   | 2,296,185   | 2,655,400   |
| SC                     | -           | -           | -           | -           | -           | -           |
| GA                     | -           | -           | -           | -           | -           | -           |
| FL                     | 66,995      | 71,182      | 75,370      | 79,557      | 83,744      | 96,845      |

# Allocation Table of Projection 7



| Year            | 2015        | 2016        | 2017        |
|-----------------|-------------|-------------|-------------|
| Metric Tons     | 173,000     | 223,900     | 265,900     |
| Pounds          | 381,399,260 | 493,614,418 | 586,208,458 |
| After Set Aside | 377,585,267 | 488,678,274 | 580,346,373 |
| ME              | 148,678     | 192,422     | 228,517     |
| NH              | 113         | 147         | 174         |
| MA              | 3,166,289   | 4,097,873   | 4,866,567   |
| RI              | 67,639      | 87,539      | 103,960     |
| CT              | 65,872      | 85,252      | 101,244     |
| NY              | 209,358     | 270,955     | 321,781     |
| NJ              | 42,258,556  | 54,691,853  | 64,951,156  |
| DE              | 49,864      | 64,535      | 76,641      |
| MD              | 5,182,782   | 6,707,658   | 7,965,906   |
| PRFC            | 2,343,982   | 3,033,628   | 3,602,687   |
| VA              | 322,163,669 | 416,950,551 | 495,163,696 |
| NC              | 1,860,609   | 2,408,036   | 2,859,745   |
| SC              | -           | -           | -           |
| GA              | -           | -           | -           |
| FL              | 67,858      | 87,823      | 104,298     |



# **BERP Workgroup Update**

May 4, 2016

# BERP WG Updates



- Last update at the Board Annual Mtg 2015
- Board recommended BERP WG move forward with ERP model development
- BERP WG met March
  - Updates on modeling approaches
  - Create general timeline

# BERP WG Timeline



- Last single-species assessment end of 2014
- BERP WG added anticipated multi-species model assessment for end of 2019
- BERP WG will update the Board Spring/Annual meeting yearly

# BERP WG Timeline



- Multiple, multi-species models in a single-species timeframe
- 2016/2017
  - Modeling workshops
  - Both internal and externally developed models
  - Ultimate decision on package included in benchmark
- 2018
  - Data workshops
- 2019
  - Assessment workshops/benchmark

# BERP WG 2016



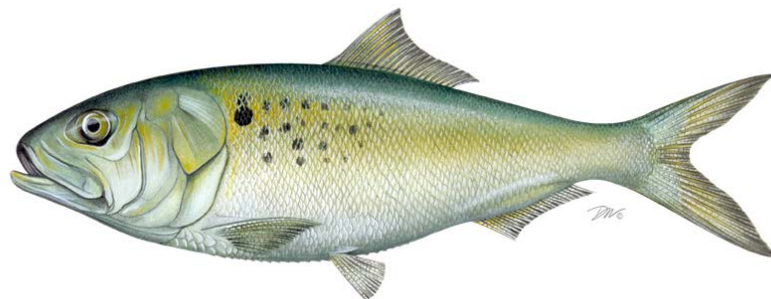
- July Modeling Workshop
- Focusing on Steele-Henderson Model
- Progress updates from 3 other models
- BERP WG update to Board in October





***Vision: Sustainably Managing Atlantic Coastal Fisheries***

# 2016 FMP Review of the 2015 Fishery for Atlantic Menhaden



Atlantic Menhaden Management Board  
May 4, 2016

# Status of FMP



- Amendment 2, implemented July 2013
- Established coast wide TAC = 376.6 mil pounds in 2013 and 2014 and 414.2 mil pounds in 2015 and 2016
- Episodic Event Set Aside (1% of overall TAC)
- State allocated quotas (2009-2011) landings history
- Transfer of quotas
- 6,000 pound bycatch allowance for non-directed fisheries
- 20% reduction in Chesapeake Bay reduction fishery harvest cap
- Timely reporting to minimize quota overages
- Improved biological monitoring

# Status of FMP



- October 2013:
  - The Board extended the episodic event set aside program through 2015.
  - Re-allocation provision; any unused set aside as of October 31 of each year will be re-allocated to the coastwide states.
- February 2014:
  - The Board passed a motion to manage cast net fisheries for Atlantic menhaden under the bycatch allowance through 2015.
- May 2016:
  - Consider extension of episodic event set aside program
  - Consider Draft Addendum I to modify bycatch allowance

# Status of the Stock



- Interim reference points based on maximum spawning potential (MSP)
- | <u>Thresholds</u> | <u>Targets</u> |
|-------------------|----------------|
| – F15%MSP         | F30%MSP        |
| – FEC15%MSP       | FEC30%MSP      |
- 2015 Benchmark Assessment Recommended new BRPs
- Peer review recommended geometric mean F ages 2-4
- | <u>Thresholds</u> | <u>Targets</u> |
|-------------------|----------------|
| – F26%MSP         | F57%MSP        |
| – FEC26%MSP       | FEC57%MSP      |
- Using the new recommended reference points:
  - Stock is not overfished and overfishing is not occurring
- Still using interim reference points while ERPs are being developed

# 2015 Status of the Fishery



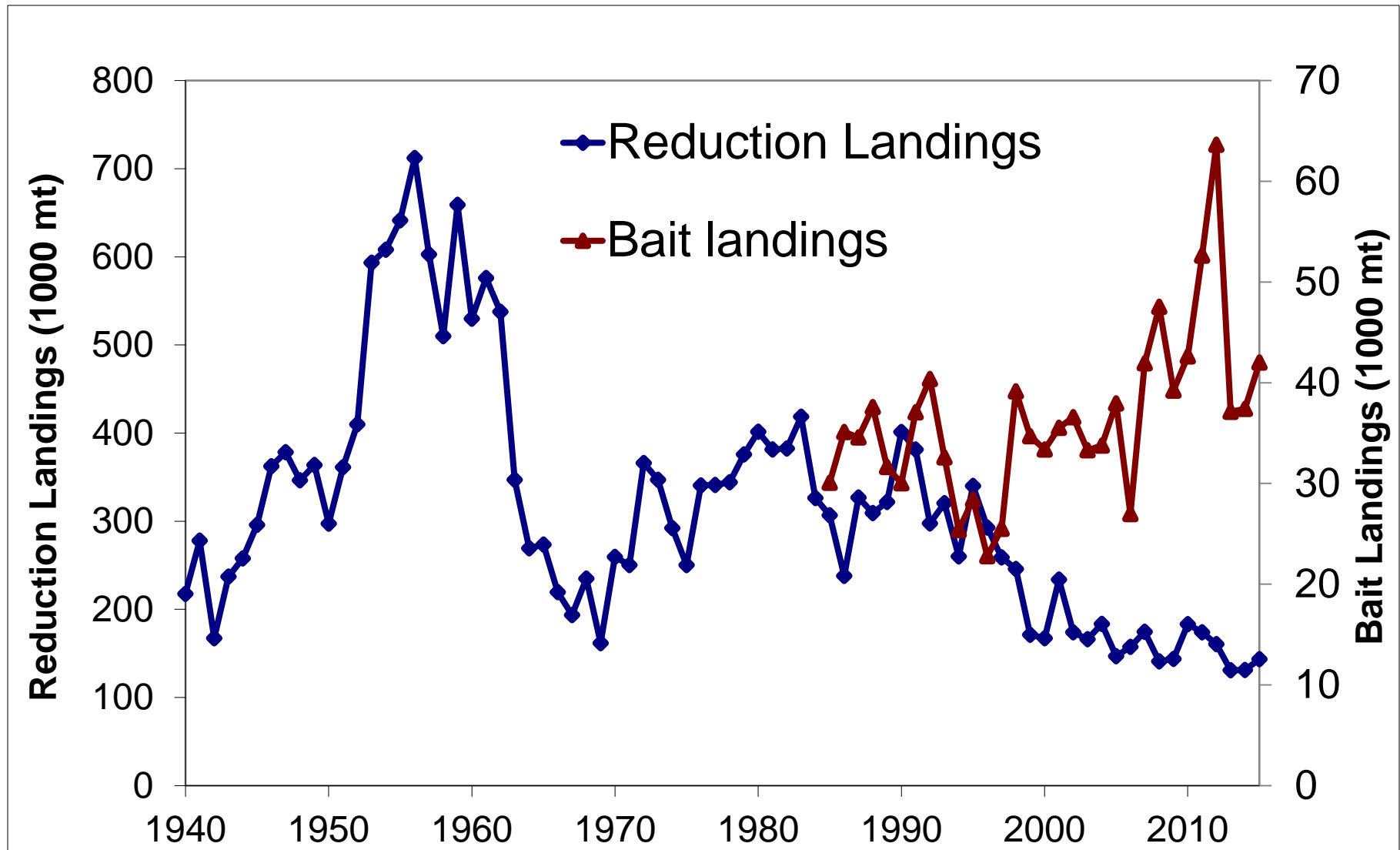
- TAC: 414.2 mil pounds
- Total harvest excluding bycatch= 410.6
  - 10.5% increase from 2014
- Bycatch harvest = 5.9 mil pounds
  - 1.4% of coastwide harvest
  - but does not count towards TAC
- Total harvest (including bycatch)= 416.5 mil pounds

# 2015 Status of the Fishery



- Reduction harvest: 316.2 mil pounds
  - 9.4% increase from 2014
  - 1.8% decrease from previous 5-year average
- Bait harvest: 92.5 mil pounds
  - 10.6% increase from 2014
  - 10.4% decrease from previous 5-year average

# Atlantic Menhaden Landings



# 2013-2015 Bycatch Analysis



| State/Jurisdiction                    | MD               | VA               | PRFC           | NY             | NJ**           | FL             | DE            | RI*           | Sum lbs (NonConf) | % of Total |
|---------------------------------------|------------------|------------------|----------------|----------------|----------------|----------------|---------------|---------------|-------------------|------------|
| <b>Stationary Gears While Fishing</b> |                  |                  |                |                |                |                |               |               |                   |            |
| Pound net                             | 2,306,552        | 122,913          | 884,843        | 128,854        | C              | -              | -             | 57,231        | <b>3,500,393</b>  | 60.9%      |
| Anchored/stake gill net               | 5,131            | 1,242,512        | -              | -              | 100,202        | C              | 28,998        | C             | <b>1,376,843</b>  | 24.0%      |
| Pots                                  | 10,001           | -                | -              | C              | -              | C              | C             | -             | <b>10,001</b>     | 0.2%       |
| Fyke nets                             | C                | C                | -              | -              | C              | -              | -             | -             | <b>918</b>        | 0.0%       |
| <b>Mobile Gears While Fishing</b>     |                  |                  |                |                |                |                |               |               |                   |            |
| Cast Net                              | C                | -                | -              | 183,137        | C              | 163,776        | -             | C             | <b>346,913</b>    | 6.0%       |
| Drift Gill net                        | 16,082           | 57,794           | -              | 18,175         | 129,620        | -              | 66,117        | -             | <b>287,788</b>    | 5.0%       |
| Seines Haul/Beach                     | C                | 5,119            | -              | 206,587        | -              | -              | -             | -             | <b>211,706</b>    | 3.7%       |
| Trawl                                 | -                | -                | -              | 9,733          | C              | -              | -             | C             | <b>9,733</b>      | 0.2%       |
| Hook & Line                           | C                | -                | -              | -              | -              | C              | -             | C             | <b>278</b>        | 0.0%       |
| <b>Sum lbs (NonConf)</b>              | <b>2,337,766</b> | <b>1,428,339</b> | <b>884,843</b> | <b>546,485</b> | <b>229,822</b> | <b>163,776</b> | <b>95,116</b> | <b>57,231</b> | <b>5,744,572</b>  |            |
| <b>% of Total</b>                     | <b>40.7%</b>     | <b>24.9%</b>     | <b>15.4%</b>   | <b>9.5%</b>    | <b>4.0%</b>    | <b>2.9%</b>    | <b>1.7%</b>   | <b>1.0%</b>   |                   |            |



# 2015 Bycatch Analysis



| Bins (LBS) | # of trips | % of total trips |
|------------|------------|------------------|
| 1-1000     | 3163       | 68%              |
| 1001-2000  | 582        | 12%              |
| 2001-3000  | 316        | 7%               |
| 3001-4000  | 139        | 3%               |
| 4001-5000  | 132        | 3%               |
| 5001-6000  | 196        | 4%               |
| 6000+      | 140        | 3%               |
| Total      | 4668       |                  |

# Episodic Events Set Aside



- ME, MA, RI qualified
- Implemented mandatory fishery management provisions of the set aside (i.e., daily reporting, 120,000 pound trip limit, restricting harvest to state waters).
- Only RI declared participation in 2015 and harvested less than 1.9 mil pounds.
- Unused set aside was re-allocated to all the coastal states on November 1<sup>st</sup>.

# 2015 Quota Performance



| State        | Transfer  | Total 2015 Quota   | 2015 Landings         | Overage          | 2016 Quota         |
|--------------|-----------|--------------------|-----------------------|------------------|--------------------|
| ME           |           | 162,356            | C                     |                  | 161,466            |
| NH           |           | 124                | 0                     |                  | 123                |
| MA           | (508,685) | 2,948,886          | 2,932,128             |                  | 3,438,630          |
| RI           | 33,685    | 107,546            | 107,142               |                  | 73,457             |
| CT           |           | 71,931             | 71,537                |                  | 71,537             |
| NY           | 475,000   | 703,617            | 698,853               |                  | 227,365            |
| NJ           |           | 46,146,129         | 47,569,115            | 1,422,986        | 44,470,349         |
| DE           |           | 54,451             | 54,153                |                  | 54,153             |
| MD           |           | 5,659,572          | 5,601,853             |                  | 5,628,568          |
| PRFC         |           | 2,559,617          | 2,283,685             |                  | 2,545,595          |
| VA           |           | 351,801,096        | 348,490,296           |                  | 349,873,884        |
| NC           |           | 2,031,775          | 839,637               |                  | 2,020,645          |
| SC           |           | -                  | C                     |                  | -                  |
| GA           |           | -                  |                       | -                | -                  |
| FL           |           | 74,101             | 75,766                | 1,665            | 72,030             |
| <b>Total</b> |           | <b>412,321,201</b> | <b>408,724,164.80</b> | <b>1,424,651</b> | <b>408,637,802</b> |

# 2015 Quota Transfers



- Massachusetts transfers:
  - 475,000 pounds to New York
  - 33,685 pounds to Rhode Island
- Overages occurred in 4 states
  - Florida and RI were high daily landings rates relative to small quotas
  - New Jersey had delinquent dealer reports
  - New York reporting on a monthly basis

# 2015 Reporting



- NY has monthly reporting, but has the capability of requiring weekly reporting if needed.
  - NY had a quota overage in 2014 and 2015
- All other states implemented timely reporting.

# 2015 Bio Samples



| State        | Total Bait Landings (pounds) | #10-fish samples required | #10-fish samples collected | Age samples collected | Length samples collected | Gear/Comments                                  |
|--------------|------------------------------|---------------------------|----------------------------|-----------------------|--------------------------|--|
| MA           | 2,932,128                    | 4                         | 4                          | 40                    | 40                       | all capture via cast net south of cape cod     |
| RI           | 177089                       | 0                         | 9                          | 110                   | 110                      | floating fish trap (8) and purse seine (1)     |
| CT           | 77,003                       | 0                         | 2                          | 22                    | 22                       | gill nets                                      |
| NY           | 1,468,165                    | 2                         | 22                         | 190                   | 220                      | gill nets, pound nets, seines                  |
| NJ           | 47,810,037                   | 72                        | 130                        | 1300                  | 1300                     | purse seine (119), and other gears (11)        |
| DE           | 150,542                      | 0                         | 1                          | 10                    | 10                       | gill net                                       |
| MD           | 7,551,430                    | 17                        | 23                         | 277                   | 914                      | pound net (12 from CBay,11 from Potomac River) |
| PRFC         | 2,739,035                    | 6                         | 14                         | 140                   | 140                      | pound net                                      |
| VA           | 34,312,808                   | 78                        | 79                         | 794                   | 794                      | pound net (9), gill net (9), haul seine (3)    |
| NC           | 839,637                      | 2                         | 9                          | 120                   | 120                      | gillnet, seine, trawl                          |
| <b>Total</b> |                              | <b>183</b>                | <b>293</b>                 | <b>3003</b>           | <b>3670</b>              |  |

# Adult CPUE Index Requirement



- Amendment 2 requirement
  - Total pounds landed per day
  - Number of pound nets fished per day
- All states in compliance with an exemption for North Carolina previously issued by Board
- Stock assessment did not end up using any fishery dependent surveys in 2015 assessment.

# Chesapeake Bay Reduction Harvest Cap



- 2015 harvest cap for reduction fishery from Chesapeake Bay: 98,192 mt
- Approximate reported 2015 harvest: ~50,000 mt
- 2015 harvest cap: 98,192 mt
  - Includes 10,976 mt rollover



# *De minimis*



- The states of New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida requested *de minimis* status for the 2016 fishing season.
- All states qualify because their bait landings in 2015 did not exceed 1% of the total coastwide bait landings.
- As a result, the PRT recommends that New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida.

# PRT Recommendations



- Accept the 2015 Fishery Management Plan Review for Atlantic menhaden.
- That the Board:
  - consider the reporting timeframe of New York to minimize future quota overages.
  - consider the *de minimis* requests from New Hampshire, Pennsylvania, South Carolina, Georgia, and Florida

# 2014 Bycatch Analysis



| State | % menhaden  | % other | Top 3 other Species               | Gears   |
|-------|-------------|---------|-----------------------------------|---|
| RI    | Unavailable |         |                                   |   |
| NY    | 67          | 33      | scup, loligo squid, spiny dogfish | fixed nets, cast nets, trawls, gill nets, seines, H&L |
| NJ    | Unavailable |         |                                   |   |
| DE    | 66          | 34      | spot, American shad, striped bass | gill net  |
| MD    | 82          | 18      | striped bass, gizzard shad, spot  | pound nets, gill nets                                 |
| PRFC  | 80          | 20      | spot, bluefish striped bass       | pound nets  |
| VA    | 70          | 30      | croaker, bluefish, spot           | gill nets, pound nets                                 |
| FL    | Unavailable |         |                                   |   |