

Management Board – Ecosystem Snapshot Quarterly Strategy Review System Meeting Presentation Summary August 10, 2017

Blue Crab Abundance *and* Management

Abundance Outcome: Maintain a sustainable blue crab population based on the current 2012 target of 215 million adult females. Refine population targets through 2025 based on best available science.

Management Outcome: Manage for a stable and productive crab fishery including working with the industry, recreational crabbers and other stakeholders to improve commercial and recreational harvest accountability. By 2018, evaluate the establishment of a Bay-wide, allocation-based management framework with annual levels set by the jurisdictions for the purpose of accounting for and adjusting harvest by each jurisdiction.

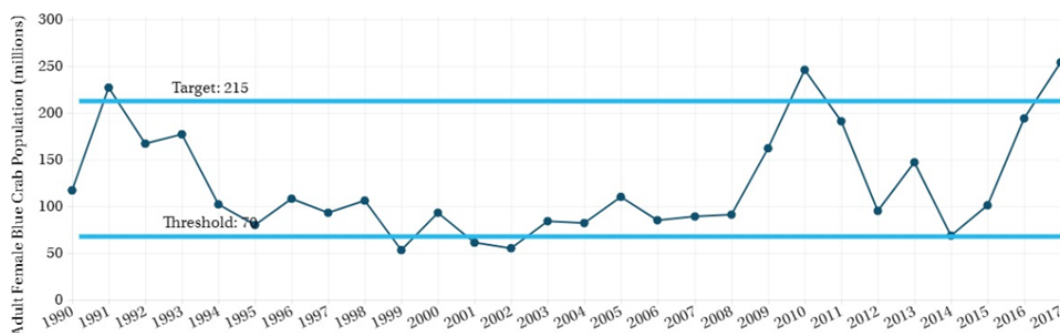
Challenges:

- Long term stock assessment financing
- Staff time (especially at the state level) to support long term stock assessment
- Improving harvest accountability within each jurisdiction
- Industry is not supportive of an allocation based management framework. No new workplans or actions expected.

Management Board Ask:

- Work with the Budget and Finance Workgroup to develop a 5-year stock assessment financing system that considers (and is not limited to) sources of revenue from outside any traditional or existing revenue streams; identify how existing resources can work in concert to ensure stock assessment is more effective; and identify how we will know financing efforts are successful in achieving the stock assessment.*
 - The benchmark stock assessment is on hold due to lack of funding. This assessment usually occurs every 5 years. The last benchmark stock assessment was completed in 2011. The stock assessment is important to evaluating the current reference points and refining annual analyses run by the Chesapeake Bay Stock Assessment Committee for the Blue Crab Advisory Report.
 - Maryland and Virginia Management Board representatives facilitate meeting of Natural Resource Secretaries and Fisheries GIT Executive Committee Members (Sean Corson, Rob O’rilly, Dave Blazer, and Marty Gary) to review the need for a stock assessment and identify near and long term funding strategies.
- Confirm completion of allocation-based fishery management outcome.
 - Send to PSC for final approval
 - Jurisdictions worked with industry to evaluate an allocation based management framework. Industry was not supportive. We recommend the Management Board agree that this outcome has been achieved.

Adult Female Blue Crab Population (1990-2017)



Oysters

Outcome: Continually increase finfish and shellfish habitat and water quality benefits from restored oyster populations. Restore native oyster habitat and populations in 10 tributaries by 2025 and ensure their protection.

Challenges:

- Funding and availability of substrate for reef construction.
- Refining restoration goals and targets in Virginia
- Restoration was put on hold for period of time in Maryland while some stakeholder concerns were evaluated
- Only six of ten tributaries have been selected and restoration is completed in one
- The process of selecting the other four tributaries (two in each jurisdiction) is underway and taking some time to finalize
- At the current trajectory, the outcome will not likely be met by its 2025 expected deadline.

Management Board Ask:

- Work through Natural Resource Secretaries in Maryland and Virginia to:
 - 1) Finalize selection of four additional Bay tributaries (2 in Maryland and 2 in Virginia)
 - a. Maryland: requires working through Fish GIT Executive Committee member Dave Blazer and the Oyster Advisory Commission
 - b. Virginia: requires working through Fish GIT Executive Committee members Rob O'Reilly and Susan Conner to review the tributaries preliminarily selected by the Virginia Interagency Oyster Team and establish a decision-making process
 - 2) Identify options to finalize tributary plans in Virginia and complete Lynnhaven and Lafayette River restoration
 - a. NOAA and USACE technical staff recommend refined analyses to establish tributary level restoration acreage goals and review with working groups and apply to tributary restoration plans
 - b. Execute funding needed to complete Lafayette
 - 3) Develop options to address shell substrate limitations in Maryland
 - a. Identify which alternative substrates can feasibly be used to meet restoration targets and acceptable to stakeholders
 - 4) Reaffirm commitment by state and federal partners to continue funding to achieve the outcome
 - a. MD and VA Natural Resource Secretary level meeting with USACE and NOAA
 - b. Funding comes from a combination of federal, state, and non-governmental organizations and should be included (ORP, Lynnhaven River NOW, CBF, etc.).
- Work with Budget and Finance Workgroup to develop a finance system to support oyster restoration outcome that considers (and is not limited to) sources of revenue from outside any traditional or existing revenue streams; identify how existing resources can work in concert to ensure the oyster restoration is more effective; and identify how we will know financing efforts are successful in achieving the oyster restoration outcome.*

| Oyster Reef Restoration Progress Dashboard | | | | |
|--|----------------------------|-------------------------------|---------------------------|---------------------------------|
| Tributary | Tributary Restoration Plan | Reef Construction and Seeding | Monitoring and Evaluation | Completed/Target Acreage (2015) |
| Harris Creek (Md.) | Complete | Complete | In Progress | 350/350 |
| Tred Avon (Md.) | Complete | In Progress | | 2.6/147 |
| Little Choptank (Md.) | Complete | In Progress | | 85.8/440 |
| Piankatank (Va.) | In Progress | In Progress | | 25/TBD |
| Lynnhaven (Va.) | In Progress | In Progress | | 63/TBD |
| Lafayette (Va.) | In Progress | In Progress | | 70/80 |

- Work with Communications Team to underscore international and regional significance of oyster restoration.
 - Brief Executive Council on oyster restoration success
- We also commend the work of the Oyster Best Management Practice Expert Panel to draft recommendations for the nitrogen and phosphorus assimilation in oyster shell and enhanced denitrification crediting protocols related to oyster aquaculture and/or restoration practices. We encourage the Management Board to facilitate streamlined review and decision.

Forage Fish

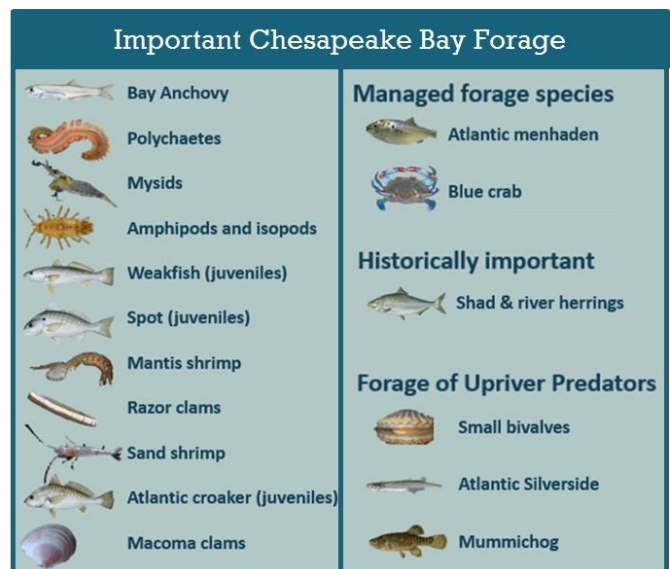
Outcome: Continually improve the Partnership’s capacity to understand the role of forage fish populations in the Chesapeake Bay. By 2016, develop a strategy for assessing the forage fish base available as food for predatory species in the Chesapeake Bay.

Challenges:

- Need to improve understanding of the relationship between forage species and shoreline condition
- Increased monitoring is needed to improve understanding of:
 - Forage species monitoring data Bay-wide (especially invertebrates)
 - Predator diet data from tributaries and shallow waters
 - Plankton monitoring data
- Need established expectations for sustainable forage populations
- Need to consider the impacts of habitat loss/degradation, development, climate change and water quality on forage populations and how these factors may impact our current methods for monitoring forage in the Chesapeake Bay. Our future selected indicators will need to be adaptive to these factors.

Management Board Ask:

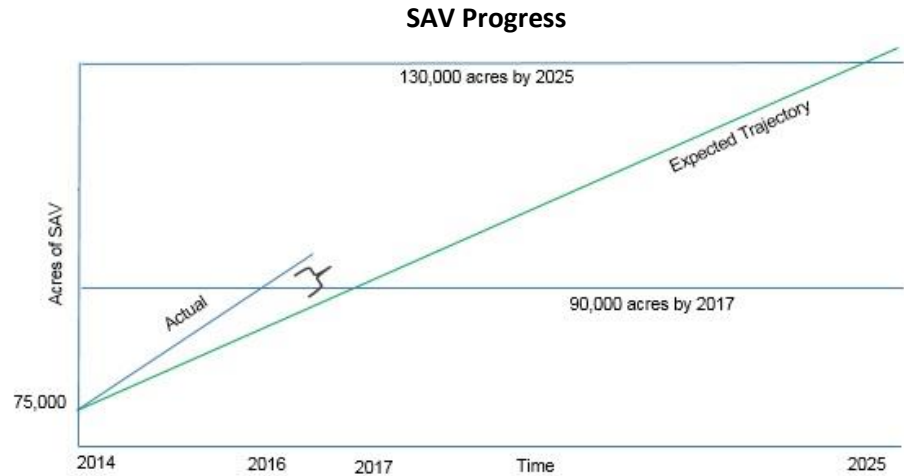
- Recommend STAC develop a threshold analysis for tidal shoreline throughout the bay. The NOAA funded [Predicting Impacts of Stressors at the Land-Water Interface in the Mid-Atlantic Region](#) project found that shoreline hardening significantly impacts fish, crabs and SAV.
- Prioritize shallow water forage monitoring, including invertebrates. Charge STAR with developing a shallow water forage monitoring strategy



Top 10 Important Chesapeake Bay forage species according to an analysis of representative tidal water predator species are pictured at left. Additional important forage at right were selected by experts to include managed, upriver and historically important species.

Submerged Aquatic Vegetation (SAV)

Outcome: Sustain and increase the habitat benefits of SAV (underwater grasses) in the Chesapeake Bay. Achieve and sustain the ultimate outcome of 185,000 acres of SAV Bay-wide necessary for a restored Bay. Progress toward this ultimate outcome will be measured against a target of 90,000 acres by 2017 and 130,000 acres by 2025.



Challenges:

- Funding for SAV Annual Monitoring
- Funding for SAV restoration and restoration research
- Lack of effective SAV communications strategy

Management Board Ask:

- Assistance from Budget & Finance Workgroup
 - Because funding has become less secure (See #8 in SAV Summary Document), it is critical for the SAV outcome, that this be the first priority for the Budget and Finance Workgroup finance system development assistance for SAV monitoring program (short-term) Work with the Budget and Finance Workgroup to develop a sustainable finance system for SAV monitoring program that considers (and is not limited to) sources of revenue from outside any traditional or existing revenue streams; identify how existing resources can work in concert to ensure stock assessment is more effective; and identify how we will know financing efforts are successful in achieving the stock assessment. * (long-term)
- Public and political engagement
 - Promote benefits of SAV
 - Support sustainable SAV monitoring Program

Extra Notes

- **Common Asks from presentations:**
 - Assistance from Budget and Finance Workgroup with drafting finance strategies
 - * Budget and Finance Workgroup is working closely with the SRS Small Group on incorporating finance strategies/systems development into the adaptive management process. Note also that working with the Budget and Finance Workgroup to develop a finance system or strategy is a very hands-on involved process that includes heavy participation from the Goal Implementation Team outcome workgroup.
 - Support and help in communicating the value of these outcomes to community