

STAC Striped Bass Survey Assessment and Habitat Connections Workshop Report

CBP Management Board Meeting
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Chesapeake Bay Program

Science. Restoration. Partnership.

Striped Bass: The Basics

 Striped bass are large anadromous fish native to eastern North America.

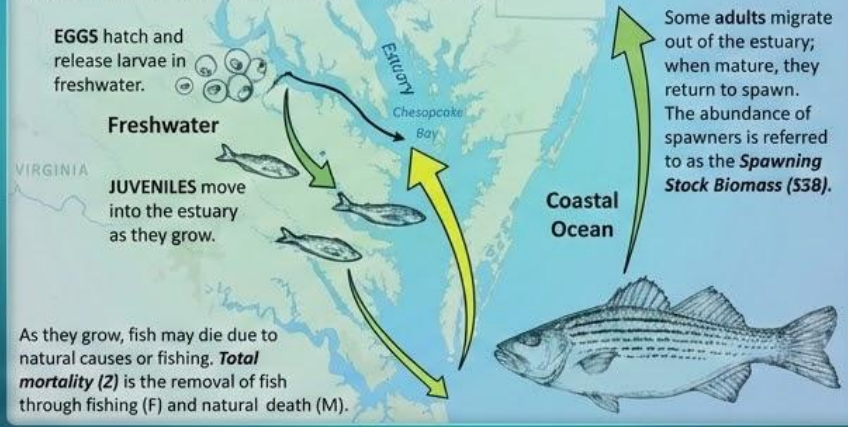
 The Chesapeake Bay is the primary producer for the Atlantic coast (90%).

 Adults migrate annually from offshore areas to freshwater spawning sites.

 Young-of-the-year utilize shallow nursery habitats.

Atlantic Striped Bass Life Cycle in the Chesapeake Bay

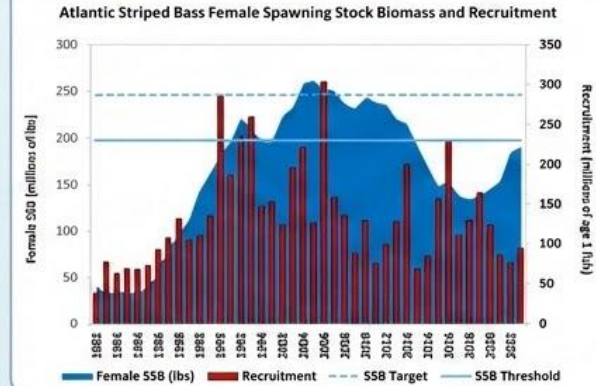
Adult striped bass live in the coastal ocean and return to fresh water to spawn. The Chesapeake Bay is an important place for all life stages of striped bass. Stock assessments take into consideration each step in the life cycle.



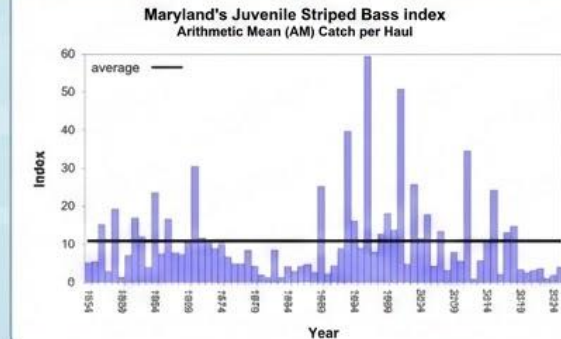
Context: Stock Status, Recruitment, Surveys

- 🐟 The spawning stock biomass has seen **increases** in recent years due to coastwide management actions (blue area on top graph).
- 🐟 Poor **recruitment** since 2019 (red bars)
- 🐟 2023 Stock Assessment: **Overfished but not overfishing**—there are not enough fish coming into the fishery to replace the fish being removed.
- 🐟 Some vocal stakeholders believe that the stock is not overfished, it's just that our juvenile survey results are inaccurate and juveniles have moved to areas that aren't sampled in the mid-Bay (**cryptic population**).

Coastwide Stock & Recruitment



Maryland Juvenile Index



CURRENT CHESAPEAKE BAY MONITORING EFFORTS



A juvenile striped bass caught and released by a survey crew in the Nanticoke River. Photo by Joe Zimmermann, Maryland DNR.



Maryland DNR conducts the **Juvenile Index Survey**, which measures young-of-the-year abundance at 22 sites.



Virginia (VIMS) Striped Bass Seine Survey targets juveniles in nursery habitats.



Adult Spawning Stock Survey (Upper Bay and Potomac) estimates relative abundance-at-age using gill nets.



ChesMMAP is a multispecies trawl survey providing age and diet data.



Chesapeake Bay Backbone Telemetry Array tracks movement at key Bay “gates.”

Management: Coast to State

COASTWIDE



 The Atlantic States Marine Fisheries Commission manages the entire **coastwide stock**.

STATE & FEDERAL IMPLEMENTATION



 State jurisdictions implement regulations to meet **ASMFC management plan** requirements.

ECOSYSTEM CONTEXT



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Chesapeake Bay Program focuses on **ecosystem context** for recovery (forage and habitat).

Workshop Findings: Survey Validation



STAC Workshop Review
February 13-14, 2025
Edgewater, MD

- Juvenile Index programs accurately bracket spawning and nursery habitats.
- Bay-wide Juvenile Index patterns align with independent indicators.
- Additional 2023 and 2024 surveys confirmed current survey is not missing juvenile striped bass.
- Indices meet rigorous inclusion criteria for stock assessment model.

Recommendations for ASMFC



Maintain existing survey designs for reliable long-term data comparison



Expand acoustic tagging



Quantify predation and blue catfish impacts



Explore changes in plankton availability early-mid spring



Develop new models for recruitment forecasting under changing conditions



Develop new models for recruitment forecasting under changing conditions



Investigate how environmental shifts affect spawning success and larval survival



Recommendations for the Chesapeake Bay Program



- Improve transparency by communicating survey designs and protocols



- Establish a formal fish habitat outcome within the Chesapeake Bay Watershed Agreement



- Track measurable habitat restoration actions like living shorelines



- Analyze survey data across multiple species for ecosystem understanding

Bay Program Next Steps



Promote habitat conservation



Support monitoring and science



Communicating science



Opportunities: Habitat Assessment, tiered implementation of TMDL and forage indicators