



## BLUE CRAB ABUNDANCE SRS 4<sup>TH</sup> CYCLE: 2024-2025 WORK PLAN

### **OUTCOME:**

Maintain a sustainable blue crab population based on a target of 196\* million adult females. Refine population targets through 2025 based on best available science.

### **Long-term Target:**

Maintain a sustainable blue crab population based on a target of 196\* million adult females. Refine population targets through 2025 based on best available science.

Stock assessment updates may lead to an adjustment of the female target.

Support science to advance understanding of ecosystem drivers affecting blue crab populations.

### **Two-year Target:**

Complete the benchmark stock assessment and address other science gaps.

*\*The original target of 215 million was revised in November 2020 based on the best available science as outlined in the outcome language.*

**Management Approach 1: Assess blue crab stock status and communicate the results to managers and the public.**

Action #	Description of Step	Performance Targets	Responsible Party or Parties	Geographic Location	Expected Timeline
1.1	Analyze the Winter Dredge Survey results and develop the annual Blue Crab Advisory Report.	Conduct the annual Winter Dredge Survey.	MDNR, VIMS	Bay-wide	December – March 2023-2024 and 2024-2025
		Analyze and review the Winter Dredge Survey results, develop management recommendations, and assess sampling methodologies to continue to reduce bias and uncertainty.	MDNR, VIMS, CBSAC	Bay-wide	March-April 2024 and 2025
		Develop and distribute the annual Blue Crab Advisory Report to managers and the public.	CBSAC	Bay-wide	April – July 2024 and 2025
<b>How do we expect the action to fill the priority factor or gap? What do you expect to happen when the action is completed?</b>			<b>What are the goals or metrics you will use to determine the impact of your action?</b>	<b>How will we collect and assess the data that we want to monitor and how will we use the data?</b>	<b>How will we communicate the results?</b>
The Winter Dredge Survey and Advisory Report assess the state of the blue crab population with respect to the established biological reference points and guide management decisions and regulatory changes as determined by PRFC, MD DNR and VMRC.			Results of the Winter Dredge Survey and Advisory Report	Winter Dredge Survey provides the data and provides the content for the Advisory Report	Through Winter Dredge Survey and Advisory Report

## MANAGEMENT APPROACH 2: Evaluate and improve the effectiveness of the blue crab stock assessment model.

Action #	Description of Step	Performance Targets	Responsible Party or Parties	Geographic Location	Expected Timeline
2.1	Improve understanding of catchability and gear effects on blue crab abundance estimates.	Synthesize results of previous efforts to examine habitat and environmental effects on catchability and evaluate options for next steps.	CBSAC Lead: Mike Wilberg	Bay-wide	Ongoing
2.2	Improve harvest reporting and characterization of catch composition.	Develop goals and recommendations for standardized cooperative fisheries data collection programs across the Bay, and identify the necessary resources to implement such programs at VMRC and PRFC.	CBSAC, VMRC, PRFC Lead: Glenn Davis	Bay-wide	Ongoing
2.3	Complete the benchmark Stock Assessment and all associate Terms of Reference	Conduct CIE peer review of the benchmark stock assessment (NOAA lead) summer-fall 2025	Stock Assessment Modeling Team (Mike Wilberg)	Bay-wide	Summer 2025
2.4	Complete the blue crab simulation model	Operational model used by CBSAC and in supporting the benchmark stock assessment.	Mike Wilberg		Summer 2024
<b>How do we expect the action to fill the priority factor or gap? What do you expect to happen when the action is completed?</b>		<b>What are the goals or metrics you will use to determine the impact of your action?</b>		<b>How will we collect and assess the data that we want to monitor and how will we use the data?</b>	<b>How will we communicate the results?</b>
A new Benchmark stock assessment will address uncertainties of the existing model and could result in revisions to the current biological reference points. Managers would need to determine how to respond to any changes in reference points. The simulation model will help test potential outcomes associated with various management scenarios. Harvest reporting improves timeliness of data and can facilitate within season management responses.		Adoption and implementation of a new benchmark stock assessment by CBSAC and management jurisdictions. Applied scenario testing of the simulation model. Improvements to harvest reporting data bay wide.		A stock assessment data workshop identified data sets to be used in the new stock assessment model.	CBSAC meetings, Sustainable Fisheries GIT meetings, stock assessment report, Annual blue crab advisory report

**MANAGEMENT APPROACH 3: Identify and address priority blue crab science needs.**

Action #	Description of Step	Performance Targets	Responsible Party or Parties	Geographic Location	Expected Timeline
3.1	Support research needs identified by the blue crab science workshop that examine relationships between, and primary drivers of, blue crab abundance, recruitment, and other important aspects of population dynamics not addressed in the benchmark stock assessment. Share results with relevant stakeholders and interested parties.	Consumption of blue crabs by predators such as blue catfish and red drum	NOAA Chesapeake Bay Office, CBP Invasive Catfish Workgroup, CBSAC, Fish GIT	Bay-wide	Ongoing
		Effects of coastal conditions on blue crab recruitment	NOAA Chesapeake Bay Office, Fish GIT, CBSAC, NCCOS	Bay-wide	Ongoing
		Effects of changing climate and habitat on blue crab abundance and distribution	NOAA Chesapeake Bay Office, Fish GIT, CBSAC	Bay-wide	Ongoing
<b>How do we expect the action to fill the priority factor or gap? What do you expect to happen when the action is completed?</b>		<b>What are the goals or metrics you will use to determine the impact of your action?</b>		<b>How will we collect and assess the data that we want to monitor and how will we use the data?</b>	<b>How will we communicate the results?</b>
Improved understanding of the relationships between, and primary drivers of, blue crab abundance, recruitment, and other important aspects of population dynamics.		Number of projects funded to address the research gaps		N/A	CBSAC meetings, Fisheries GIT meetings, Annual blue crab advisory report