

BIENNIAL STRATEGY REVIEW SYSTEM

Chesapeake Bay Program



Logic and Action Plan: Pre-Quarterly Progress Meeting

Blue Crab Abundance Outcome – 2018-2019

[NOTE: make sure to edit **pre-** or **post-** in the text above, to tell the reader whether this logic and action plan is in preparation for your quarterly progress meeting or has been updated based on discussion at the quarterly progress meeting.]

Long-term Target: (the metric for success of Outcome)

Two-year Target: (increment of metric for success)

Instructions: Before your quarterly progress meeting, provide the status of individual actions in the table below using this color key.
Action has been completed or is moving forward as planned.
Action has encountered minor obstacles.
Action has not been taken or has encountered a serious barrier.

Additional instructions for completing or updating your logic and action plan can be found on [ChesapeakeDecisions](#).

Factor	Current Efforts	Gap	Actions	Metrics	Expected Response and Application	Learn/Adapt
<i>What is impacting our ability to achieve our outcome?</i>	<i>What current efforts are addressing this factor?</i>	<i>What further efforts or information are needed to fully address this factor?</i>	<i>What actions are essential (to help fill this gap) to achieve our outcome?</i>	<i>What will we measure or observe to determine progress in filling identified gap?</i>	<i>How and when do we expect these actions to address the identified gap? How might that affect our work going forward?</i>	<i>What did we learn from taking this action? How will this lesson impact our work?</i>
Scientific and Technical Understanding of the current blue crab population	Annual Winter Dredge Survey (WDS) estimates the number of over-wintering	Full stock assessments are needed to establish or revise targets/thresholds for abundance and	1.1 Continue planning stock assessment update with selected terms of reference		These actions will provide intermittent data to inform blue crab monitoring, and establish the	

	<p>crabs by age and sex. Current blue crab stock assessment update is targeting selected terms of reference between full stock assessments.</p>	<p>harvest levels to inform management decisions.</p>	<p>1.2 Evaluate timing, planning, and funding for the next benchmark stock assessment (full analysis and review of the stock condition, focusing on consideration of new data sources and new/improved assessment models)</p>		<p>schedule for future stock assessments.</p>	
<p>Government Agency Engagement at the Federal, State and/or Local Levels: coordination in planning and funding a benchmark stock assessment.</p>	<p>Terms of Reference have been discussed and agreed upon for future benchmark assessment.</p>	<p>In order to complete a benchmark stock assessment, a funding mechanism must be identified.</p>	<p>1.1 Continue planning stock assessment update with selected terms of reference</p> <p>1.2 Evaluate timing, planning, and funding for the next benchmark stock assessment (full analysis and review of the stock condition, focusing on consideration of new data sources and new/improved assessment models)</p>			

<p>Public engagement/comprehension of a complex fishery and presenting data in an intelligible way</p>	<p>Blue crab advisory report is published each year, which analyzes the WDS results and gives an estimation of the population.</p>	<p>It is important to differentiate between benchmark stock assessment and update. Determining how to present uncertainty to stakeholders and developing management triggers will help the public understand specific management actions.</p>	<p>1.3 Analyze the Winter Dredge Survey results and develop annual Advisory Report.</p> <p>1.5 Respond to recent research and issues in the blue crab fishery.</p>			
<p>Scientific and Technical Understanding of harvest impacts and fishery conditions</p>	<p>All Chesapeake Bay management jurisdictions have ongoing efforts to improve the quality of catch and fishing effort information submitted by commercial and recreational harvesters. Daily harvest reports (with information on the water body fished, the gear type used, the amount of gear, sex and size specific harvest amounts, etc.) are required.</p>	<p>Data is still needed to better understand how harvest levels change from year-to-year and within each year to inform management decisions. Improving commercial and recreational harvest reporting would provide managers with an improved accounting of harvest and reduce uncertainty surrounding exploitation rates.</p>	<p>1.5 Respond to recent research and issues in the blue crab fishery.</p>			

<p>Scientific/technical understanding of the ecosystem factors that may impact the blue crab population.</p>	<p>The Winter Dredge Survey examines overwintering mortality, which may elucidate the effects of climate on the blue crab population.</p>	<p>Many factors may influence blue crab health and survival at various life stages. Juvenile and molting adult blue crabs obtain refuge from predation by use of key habitats, such as SAV. Understanding how these habitats are changing with climate, sea level rise, variations in salinity and temperature, and low dissolved oxygen. Studies on seasonal oceanic flow, storm events, and current patterns are useful in determining larval retention in coastal waters and post larval settlement.</p>	<p>1.4 Complete the ecosystem factors affecting blue crab study.</p>			
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ACTIONS – 2018-2019

Action #	Description	Performance Target(s)	Responsible Party (or Parties)	Geographic Location	Expected Timeline
Management Approach 1:					
1.1	Continue planning stock assessment update with selected terms of reference	<p>Report progress on stock assessment update at Winter 2018 Chesapeake Bay Stock Assessment Committee meeting.</p> <ul style="list-style-type: none"> ● Resolve issues with catchability / relative abundance of juveniles and adults. ● Review life history parameters (e.g. - variable M –by age, sex) 	CBSAC	Baywide	January 2018

		Incorporate commercial CPUE as tuning index (Co-op dataset: 14 years // CPUE by gear, region, size, sex)			
		Conduct stock assessment update on above selected terms of reference.	CBSAC	Baywide	February 2019
1.2	Evaluate timing, planning, and funding for the next benchmark stock assessment (full analysis and review of the stock condition, focusing on consideration of new data sources and new/improved assessment models)	Revisit terms of reference and evaluate when the next benchmark stock assessment is needed.	CBSAC, GIT Executive Committee	Baywide	January 2019
		Develop options for funding a benchmark stock assessment in coordination with the CBP Budget and Finance Workgroup.	CBSAC, Budget and Finance Workgroup, GIT Executive Committee	Baywide	February 2019
		Plan timeline, terms of reference, and expectations for the next benchmark stock assessment.	CBSAC, GIT Executive Committee	Baywide	February 2019
1.3	Analyze the Winter Dredge Survey results and develop annual Advisory Report.	Conduct annual Winter Dredge Survey.	MD DNR, VIMS	Baywide	December – March 2018 and 2019
		Analyze results of Winter Dredge Survey, develop management recommendations, and develop annual Advisory Report.	CBSAC	Baywide	March – April 2018 and 2019 (complete analysis); July 2018 and 2019 (report)
1.4	Complete the ecosystem factors affecting blue crab study.	Complete the ecosystem factors affecting blue crab study and present results at the Spring 2018 Sustainable Fisheries GIT Meeting.	UMCES	Baywide	February 2018 (complete study); June 2018
		Evaluate results of ecosystem factors affecting blue crab study and discuss how they will be applied to current management framework.	CBSAC	Baywide	June 2019

1.5	Respond to recent research and issues in the blue crab fishery.	Evaluate how to present uncertainty around estimate of exploitation. Consider how to present information to stakeholders and managers.	CBSAC	Baywide	Ongoing
		Provide technical review of "Ecological and Economic Effects of Derelict Fishing Gear in the Chesapeake Bay" to GIT Executive Committee	CBSAC	Baywide	Spring 2018
		Discuss options for developing blue crab management triggers.	CBSAC	Baywide	February 2019