DECISION DOCUMENT

Blue Crab Fishery Management Plan Amendment 3 Adaptive Management



This document was developed to help the MFC track previous activity and prepare for upcoming actions for Blue Crab FMP Amendment 3 Adaptive Management.

Summary

Amendment 3 to the N.C. Blue Crab Fishery Management Plan (FMP) was adopted in February 2020 and is nearly halfway through the legislatively mandated 10-year stock rebuilding period with little evidence suggesting management measures have been successful in ending overfishing or achieving sustainable harvest. The intent of the Amendment 3 adaptive management framework is to allow for management changes if measures are not meeting objectives. Because stock indicator trends continue to show long-term decline in all blue crab life stages and both sexes, the adaptive management framework will be used to implement management measures projected to reduce fishing mortality (*F*) closer to the *F* target and rebuild the spawning stock closer to the spawner abundance target with greater than 50% probability of success.

Amendment 3 Background

As part of <u>Amendment 3 to the North Carolina Blue Crab FMP</u>, a benchmark <u>stock assessment</u> was conducted using data from 1995–2016. Based on assessment results, the N.C. blue crab stock was overfished and overfishing was occurring in 2016.

The North Carolina Fishery Reform Act of 1997 requires the State specify a time period not to exceed two years to end overfishing and achieve sustainable harvest within 10 years of the date of adoption of the plan. To meet this requirement, a minimum harvest reduction of 0.4% (in numbers of crabs) was projected to end overfishing and a harvest reduction of 2.2% was projected to achieve sustainable harvest and rebuild the blue crab spawning stock within 10 years with a 50% probability of success (Table 1).

Table 1. Catch reduction projections for varying levels of fishing mortality (*F*) and the probability of achieving sustainable harvest within the 10-year rebuilding period defined in statute. Bolded row is minimum required harvest reduction.

	Catch Reduction	Probability of achieving sustainable harvest	
<i>F</i> (yr-1)	(%)	within 10 years (%)	Comments
1.48	0.0	31	2016 average F from stock assessment
1.46	0.4	45	Catch reduction to meet <i>F</i> threshold and end overfishing
1.40	1.7	46	Catch reduction to meet spawner abundance threshold and end overfished status
1.38	2.2	50	Catch reduction to meet minimum statutory requirement for achieving sustainable harvest
1.30	3.8	67	
1.22	5.9	90	Catch reduction to meet F target
1.10	9.3	96	
1.00	12.3	100	
0.90	15.7	100	
0.80	19.8	100	Catch reduction to meet spawner abundance target
0.70	24.3	100	<u> </u>

At their February 2020 business meeting the MFC adopted Amendment 3 to the FMP with the following management strategies to end overfishing and achieve sustainable harvest in the blue crab fishery:

- North of the Highway 58 Bridge: January 1 through January 31 blue crab harvest closure.
- South of the Highway 58 Bridge: March 1 through March 15 blue crab harvest closure.
- A 5-inch minimum size limit for mature female crabs statewide.
- Align the pot closure period with the regional season closures and remain closed in entirety (cannot be reopened early).
- Maintain the prohibition on harvest of immature female hard crabs statewide established in the 2016 Revision to Amendment 2.
- Maintain the 5% cull tolerance established in the 2016 Revision to Amendment 2.
- Adopt proposed adaptive management framework and allow measures to be relaxed if the
 assessment update indicated the stock was not overfished and overfishing was not
 occurring and recommend updating the stock assessment once 2019 data are available.

The adopted management provided an estimated 2.4% harvest reduction with a 50% probability of achieving sustainable harvest. This reduction was slightly over the statutorily required minimum (2.2% reduction), but below the harvest reduction level needed to reduce F to the target (5.9% reduction) and the reduction needed to increase spawner abundance to the target (19.8% reduction; Table 1).

Amendment 3 management strategies have been fully in place since January 2021. Amendment 3 also maintained all measures implemented with the <u>May 2016 Revision to the Blue Crab FMP</u>. A summary of all management measures in place through Amendment 3 can be found in <u>Amendment 3</u>, the annual <u>FMP Update</u> or in the <u>Amendment 3 flyer</u>.

Amendment 3 Adaptive Management

In addition to management strategies to reduce harvest, Amendment 3 also includes the following adaptive management framework

- 1. Update the stock assessment at least once in between full reviews of the FMP, timing at the discretion of the division
 - a. If the stock is overfished and/or overfishing is occurring or it is not projected to meet the sustainability requirements, then management measures shall be adjusted using the director's proclamation authority
 - b. If the stock is not overfished and overfishing is not occurring, then management measures may be relaxed provided it will not jeopardize the sustainability of the blue crab stock
- 2. Any quantifiable management measure, including those not explored in this paper, with the ability to achieve sustainable harvest (as defined in the stock assessment), either on its own or in combination, may be considered
- 3. Use of the director's proclamation authority for adaptive management is contingent on:
 - a. Consultation with the Northern, Southern, and Shellfish/Crustacean advisory committees
 - b. Approval by the Marine Fisheries Commission

Upon evaluation by the division, if a management measure adopted to achieve sustainable harvest (either through Amendment 3 or a subsequent Revision) is not working as intended, then

it may be revisited and either: 1) revised or 2) removed and replaced as needed provided it conforms to steps 2 and 3 above.

Post Amendment 3 Stock Assessment Update

Following full implementation of Amendment 3 management measures in 2021, DMF monitoring programs continued to observe historically low <u>commercial landings</u>, coupled with continued <u>low abundance of all blue crab life stages</u> (e.g., male and female juveniles, male and female adults, mature females). In response to stock concerns expressed by commercial crabbers and continued poor trends in abundance since adoption of Amendment 3, the DMF began <u>updating the stock assessment</u> with data through 2022. <u>Results</u> of the model update indicate the magnitude and trends for estimated recruitment, female spawner abundance, and fishing mortality were similar to the benchmark assessment (Figure 1); however, the Maximum Sustainable Yield (MSY) based reference points used to determine stock status for both female spawner abundance and fishing mortality changed drastically (Figures 2-3).

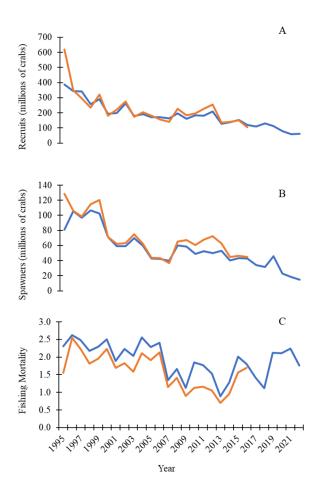


Figure 1. Comparison of estimates of (A) total recruitment, (B) female spawner abundance, and (C) fishing mortality between the 2023 stock assessment update (blue line) and the 2018 benchmark stock assessment (orange line).

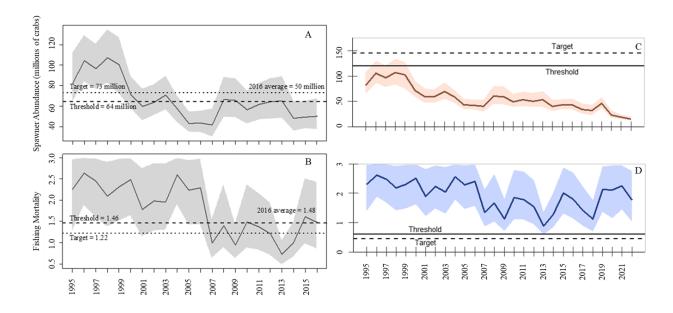


Figure 2. Annual estimates of (A) mature female spawner abundance and (B) fishing mortality relative to associated reference points from the 2018 benchmark stock assessment. Annual estimates of (C) mature female spawner abundance and (D) fishing mortality relative to associated reference points from the 2023 stock assessment update.

Due to the magnitude of the change in reference points, the DMF requested an external review of the assessment update, which was completed in late December 2023. Reviewers identified concerns with model specifications and results and strongly recommended resolving these issues before basing any management decisions solely on the assessment update. Suggestions provided by reviewers can only be incorporated with a new benchmark stock assessment. Given concerns with the assessment update identified by the DMF and external peer reviewers, the DMF does not recommend using results of the 2023 stock assessment update to inform management. The model specification issues in the update do not invalidate the benchmark stock assessment or the data sources used in the benchmark or the updated model.

Declines in the North Carolina blue crab stock are not unique, as blue crab stocks in other Atlantic coast states have declined similarly. In January 2023 the South Carolina Department of Natural Resources released a <u>status report</u> for the South Carolina blue crab fishery. The report concluded the South Carolina blue crab stock has been in decline for nearly two decades and provided recommendations to prevent overharvesting, gradually reduce fishing pressure, prevent overexploitation, and strengthen enforcement capabilities. Concerns for the <u>Chesapeake Bay blue crab stock have also persisted</u>. While the Chesapeake Bay blue crab stock is not depleted and overfishing is not occurring, juvenile abundance remains low. Precautionary management, focusing on protecting mature females and juveniles, has been recommended for the Chesapeake Bay stock and a benchmark stock assessment has been started to better understand the population. In addition, because the conservation trigger for male harvest has been exceeded several times, consideration of management to protect male crabs has been recommended.

Management Strategies and Recommendations

The Division explored several quantifiable management strategies that could be considered for implementation based on specifications of the Amendment 3 Adaptive Management Framework.

Size limits are used to protect a portion of the stock. Currently, male and mature female hard crabs are subject to a 5-inch minimum carapace width (CW) statewide (harvest of immature females is prohibited).

Because a minimum size limit is already in place for blue crabs, and because achieving necessary harvest reductions through size limit changes alone is unlikely, management options for increasing the minimum size limit or establishing a maximum size limit were not developed.

Prohibiting Crab Trawling prevents harvest from a gear that primarily harvests female crabs prior to the spawning season. Most crab trawl harvest occurs from December through April and is highly variable from year to year. Due to location and time of year crab trawls operate, most crabs harvested by crab trawls are females of lower market value. In 2024, crab trawls accounted for 2.0% of all blue crab landings, but on average account for 0.7% of blue crab landings (2019–2024). There is often conflict between the crab trawl and crab pot fisheries. While the crab trawl fishery does not currently have a lot of participants, because this fishery primarily harvests female crabs, further growth may be detrimental to the crab stock.

Seasonal Closures can be used to reduce overall harvest by restricting harvest during specific times of year. Amendment 3 implemented a January 1–31 closure in areas north of the Highway 58 bridge to Emerald Isle and a March 1–15 closure in areas south of the Highway 58 bridge to Emerald Isle.

Life Stage Closures and Limits are used to limit harvest of specific life stages (e.g., immature females, sponge crabs, etc.). Amendment 3 maintained the prohibition on harvest of immature female hard blue crabs and harvest of dark sponge crabs from April 1–30. The intent of prohibiting harvest of immature female blue crabs is to allow immature females the opportunity to mature and spawn before being subject to harvest. Prioritizing the reproductive potential of female crabs through life-stage closures serves as a proactive investment to the sustainability of the blue crab population. This strategy not only fosters increased abundance within the crab population but likely contributes to higher recruitment. It also continues to allow harvest opportunities on male crabs.

Trip or Bushel Limits limit catch while continuing to allow harvest opportunities. Maryland and Virginia each manage blue crab harvest with some form of a trip limit in combination with other measures.

Management Options

Current management of the N.C. blue crab fishery recognizes the conservation value of protecting mature female crabs by prohibiting harvest of dark sponge crabs from April 1–30 and by establishing crab spawning sanctuaries (CSS) at all coastal inlets. The purpose of the CSS is to protect mature females in these areas prior to and during the spawning season, though sanctuary size and other factors limit their effectiveness. Season closures and life stage harvest limits can be used to enhance the effectiveness of the existing CSS by providing broader protections.

Management options provided below focus on limiting harvest of blue crabs during biologically important times of year (e.g., mating and spawning seasons) and specifically limiting harvest of mature females.

Option 1 – **Prohibit Crab Trawling** (year-round, statewide; estimated 0.7% harvest reduction relative to 2019–2024 landings).

Option 2 – **Prohibit Sponge Crab Harvest** (year-round, statewide; estimated 1.4% harvest reduction relative to 2019–2024 landings).

Options 3 and 4 – propose various **trip limits** (see Table 2a for statewide option details and estimated harvest reduction and Table 3 for regional option details and estimated harvest reduction)

Option 5 and 6 – propose various combinations of **trip limits and season closures** (see Table 2a for statewide option details and estimated harvest reduction and Table 3 for regional option details and estimated harvest reduction)

Options 7, 8, 9, 10, and 11 – propose various life stage specific trip limits, and season closures (see Table 2b for option details and estimated harvest reduction)

Initial DMF Recommendation Presented to Advisory Committees in March 2025

In consideration of blue crab life history and blue crab fishery characteristics, the preliminary DMF recommendation presented to the Northern, Southern, and Shellfish/Crustacean Advisory Committees in March 2025 was Option 11.a (was labeled as Option 8.a when it was presented to the ACs in March 2025), 10-bushel limit for mature female blue crabs from June—December and no harvest of mature female blue crabs from January—May (Table 2b). The DMF also preliminarily recommended maintaining existing season closures and all other blue crab management measures currently in place. In combination, these management measures would effectively reduce harvest by an estimated 22.5 percent compared to landings from 2019–2024 (21.7 percent compared to landings from 2019–2023), increase the spawning stock biomass, and promote increased recruitment.

Table 2a. Estimated percent harvest reductions from season closure and trip limit management options compared to annual commercial hard blue crab landings, 2019-2024. Unless stated otherwise all options are in addition to existing management including season closures and apply statewide. One bushel is estimated to be 40 pounds.

estimated to be 40 pounds.					
Option #	Measures	2019-2024			
3	a. 10-bushel hard crab trip limit year-round	47.6			
	b. 15-bushel hard crab trip limit year-round	34.1			
	c. 20-bushel hard crab trip limit year-round	24.6			
	d. 25-bushel hard crab trip limit year-round	18.0			
	e. 30-bushel hard crab trip limit year-round	13.2			
	f. 35-bushel hard crab trip limit year-round	9.7			
	g. 40-bushel hard crab trip limit year-round	7.1			
	h. 45-bushel hard crab trip limit year-round	5.2			
	i. 50-bushel hard crab trip limit year-round	3.9			
4	a. 10-bushel hard crab trip limit Sept–Dec	22.2			
	b. 15-bushel hard crab trip limit Sept–Dec	17.1			
	c. 20-bushel hard crab trip limit Sept–Dec	13.1			
	d. 25-bushel hard crab trip limit Sept–Dec	10.1			
	e. 30-bushel hard crab trip limit Sept–Dec	7.7			
	f. 35-bushel hard crab trip limit Sept–Dec	5.9			
	g. 40-bushel hard crab trip limit Sept–Dec	4.5			
	h. 45-bushel hard crab trip limit Sept–Dec	3.4			
	i. 50-bushel hard crab trip limit Sept–Dec	2.5			
5	a. 10-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	28.0			
	b. 15-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	22.9			
	c. 20-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	18.9			
	d. 25-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	15.4			
	e. 30-bushel hard crab trip limit Sept-Nov, closed Dec-Mar	12.6			
	f. 35-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	10.4			
	g. 40-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	8.6			
	h. 45-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	6.1			
	i. 50-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	4.3			
6	a. 10-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	24.4			
-	b. 15-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	19.5			
	c. 20-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	15.7			
	d. 25-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	12.5			
	e. 30-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	10.1			
	f. 35-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	8.1			
	g. 40-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	6.6			
	h. 45-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	4.8			
	i. 50-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	3.5			

Table 2b. Estimated percent harvest reductions from mature female season closure and trip limit management options compared to annual commercial hard blue crab landings, 2019-2024. Unless stated otherwise all options are in addition to existing management including season closures and apply statewide. One bushel is estimated to be 40 pounds. *Initial DMF recommendation presented to Northern, Southern, and Shellfish/Crustacean Advisory Committees in March 2025.

Option #	Measures	2019-2024
7	a. 10-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-Mar	14.9
	b. 15-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-Mar	12.8
	c. 20-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-Mar	11.3
8	a. 10-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-May	19.2
	b. 15-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-May	17.1
	c. 20-bushel mature females Sept-Oct, 5-bushel mature females Nov-Dec, no mature females Jan-May	15.5
9	a. 10-bushel all hard crabs limit Sept-Nov, complete closure Dec-Jan, no mature females Feb-May	30.7
	b. 15-bushel all hard crabs limit Sept-Nov, complete closure Dec-Jan, no mature females Feb-May	26.0
	c. 20-bushel all hard crabs limit Sept-Nov, complete closure Dec-Jan, no mature females Feb-May	22.3
10	a. 10-bushel mature females Sept-Dec, no mature females Jan-May	17.7
	b. 15-bushel mature females Sept-Dec, no mature females Jan-May	14.5
	c. 20-bushel mature females Sept-Dec, no mature females Jan-May	12.2
11	a. 10-bushel mature females June-Dec, no mature females Jan-May*	22.5
	b. 15-bushel mature females June-Dec, no mature females Jan-May	17.3
	c. 20-bushel mature females June-Dec, no mature females Jan-May	13.9

Region-specific estimated percent harvest reductions from season closure and trip limit management options 3-6 (see Table 7a) compared to annual commercial hard blue crab landings, 2019-2024. The Highway 58 Bridge to Emerald Isle separates the northern and southern regions. For each option and region, estimated percent reductions were calculated relative to landings within the given region and relative to statewide landings. Unless stated otherwise all options are in addition to existing management including season closures. One bushel is estimated to be 40 pounds. NOTE: Ocean landings and some landings from 2023 and 2024 were excluded from regional calculations because they cannot be assigned as north or south of the Highway 58 Bridge; therefore, reductions will not be equal to reductions in Table 2a. *DMF recommendation for south of the Highway 58 Bridge and *DMF Recommendation for north of the Highway 58 Bridge presented to MFC in November 2025.

		Northern Landings		Southern Landings	
Option #	Measures	Region	Statewide	Region	Statewide
3	a. 10-bushel hard crab trip limit year-round	49.4	45.4	26.4	2.2
	b. 15-bushel hard crab trip limit year-round	35.8	32.9	14.6	1.2
	c. 20-bushel hard crab trip limit year-round	26.1	24.0	8.4	0.7
	d. 25-bushel hard crab trip limit year-round	19.1	17.6	5.3	0.4
	e. 30-bushel hard crab trip limit year-round	14.0	12.9	3.6	0.3
	f. 35-bushel hard crab trip limit year-round	10.3	9.5	2.6	0.2
	g. 40-bushel hard crab trip limit year-round	7.6	6.9	2.0	0.2
	h. 45-bushel hard crab trip limit year-round	5.6	5.1	1.5	0.1
	i. 50-bushel hard crab trip limit year-round	4.1	3.8	1.2	0.1
4	a. 10-bushel hard crab trip limit Sept–Dec	23.3	21.4	9.5	0.8
	b. 15-bushel hard crab trip limit Sept–Dec#	18.2	16.7	5.4	0.4
	c. 20-bushel hard crab trip limit Sept–Dec	14.1	12.9	3.0	0.2
	d. 25-bushel hard crab trip limit Sept–Dec	10.8	9.9	1.7	0.1
	e. 30-bushel hard crab trip limit Sept–Dec*	8.3	7.6	1.1	0.1
	f. 35-bushel hard crab trip limit Sept–Dec	6.4	5.8	0.7	0.1
	g. 40-bushel hard crab trip limit Sept–Dec	4.8	4.4	0.6	<0.1
	h. 45-bushel hard crab trip limit Sept–Dec	3.6	3.3	0.5	<0.1
	i. 50-bushel hard crab trip limit Sept–Dec	2.7	2.5	0.4	<0.1

Table 3 continued.

		Northern landings Southern landing		rn landings	
Option #	Measures	Region	Statewide	Region	Statewide
5	a. 10-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	28.4	26.1	23.0	1.9
	b. 15-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	23.6	21.6	19.9	1.6
	c. 20-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	19.7	18.1	18.0	1.5
	d. 25-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	16.7	15.3	17.1	1.4
	e. 30-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	14.3	13.1	16.7	1.4
	f. 35-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	12.4	11.4	16.5	1.4
	g. 40-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	11.0	10.1	16.4	1.3
	h. 45-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	9.8	9.0	16.3	1.3
	i. 50-bushel hard crab trip limit Sept–Nov, closed Dec–Mar	8.9	8.2	16.3	1.3
6	a. 10-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	24.9	22.9	17.7	1.5
	b. 15-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	20.1	18.5	14.5	1.2
	c. 20-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	16.3	14.9	12.7	1.0
	d. 25-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	13.2	12.1	11.8	1.0
	e. 30-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	10.8	10.0	11.4	0.9
	f. 35-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	9.0	8.2	11.2	0.9
	g. 40-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	7.5	6.9	11.1	0.9
	h. 45-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	6.4	5.8	11.0	0.9
	i. 50-bushel hard crab trip limit Sept–Nov, closed Dec–Jan	5.5	5.0	10.9	0.9

Advisory Committee Review

The Amendment 3 adaptive management framework requires "consultation" with the Northern, Southern, and Shellfish/Crustacean advisory committees before management changes can be approved by the MFC. To fulfill this requirement, the advisory committees met the week of March 18–20, 2025 to discuss adaptive management and provide recommendations. DMF staff provided background information and the preliminary DMF recommendation. In addition, DMF staff were available prior to each meeting to answer questions and discuss blue crab science and management with the public.

Key takeaways from all meetings included:

- Concern about the economic impact of the preliminary DMF recommendation
- Concern about how the preliminary recommendation would disproportionately impact certain fishery segments and areas and the need for fair management between regions
- Distrust of stock assessment results and data
- Concern that landings declines are the result of market conditions and participation declines, not a declining blue crab stockConcern about the effects of water quality and predation on the blue crab stock
- Questions about authority to make management changes without an updated stock assessment
- The need for cooperation with industry for data collection and formulating management
- Some acknowledgement the stock has declined since the 1990s even if it is not because
 of fishing
- Some concern about long-term declining trends

Advisory Committee Recommendations

<u>Northern</u>

Motion for the Marine Fisheries Commission to not take final action on Blue Crab Amendment 3 Adaptive Management until August 2025, instead of May 2025 (motion passes 10-0)

Motion for the Marine Fisheries Commission to remain status quo regarding the Blue Crab FMP Amendment 3 Adaptive Management (motion passes 7-2, with 1 abstention)

Southern

Motion to recommend the Marine Fisheries Commission to remain status quo regarding Blue Crab FMP Amendment 3 Adaptive Management and to move the Marine Fisheries Commission action on Blue Crab to the August 2025 meeting (motion passes 6-1, with 1 abstention)

Shellfish/Crustacean

Motion for the Marine Fisheries Commission to not take final action on Blue Crab Amendment 3 Adaptive Management until August 2025, instead of May 2025 (motion passes, 5-0, with 2 abstentions)

Motion to recommend to the Marine Fisheries Commission to remain status quo regarding Blue Crab FMP Amendment 3 (motion passes 4-0, with 3 abstentions)

DMF Amendment 3 Adaptive Management Recommendations

Following the March Advisory Committee meetings, the DMF further evaluated potential management options and stock indicators updated with data from 2024. The stock indicator trends continue to show long-term decline in all blue crab life stages and both sexes. Even without an updated stock assessment, there is little evidence overfishing has ended, or sustainability objectives of Amendment 3 will be met with the current management strategy. Therefore, the DMF recommends that some action be taken immediately to begin in 2026 through Amendment 3 Adaptive Management to address continued declines in the stock. In consideration of Advisory Committee recommendations and public comment, the DMF revised the recommendations to reduce harvest to a level that approximates the reduction needed to meet the *F* target (5.9%) and increases the probability of meeting the spawner threshold from 50% (current strategy) to 90% (see Table 1). The final DMF recommendations are as follows:

- Maintain all blue crab management measures including existing season closures.
- **Option 1**, effective January 1, 2026, prohibit crab trawling statewide year-round (estimated 0.7% harvest reduction relative to 2019–2024 landings)
- **Option 4e** (North of the Highway 58 Bridge), 30-bushel hard crab trip limit from September–December (estimated 8.3% harvest reduction relative to 2019–2024 northern landings and 7.6% harvest reduction from statewide landings)
- **Option 4b** (South of the Highway 58 Bridge), 15-bushel hard crab trip limit from September December (estimated 5.4% harvest reduction relative to 2019–2024 southern landings and 0.4% harvest reduction from statewide landings)

These recommendations should be viewed as a first step rather than a comprehensive solution. Recommendations are based on a stock assessment that indicated the stock was overfished and overfishing was occurring but has a terminal year of 2016. Fishery-independent stock indicators suggest stock status has not improved since then. The DMF has begun the process of developing a new benchmark stock assessment which should provide an updated stock status. If the assessment indicates additional management is necessary, it will be important to implement additional measures through adaptive management to ensure stock sustainability. Review of the Blue Crab FMP is scheduled to begin in 2026, at which time comprehensive management will be explored. Until then, Amendment 3 management, including adaptive management and changes made through adaptive management will remain in place.

See the updated timeline for revision development below:

May 2024	DMF presents results of stock assessment update and adaptive management plan to MFC		
May-August 2024	Outreach and analysis		
September 2024	DMF updates Northern, Southern, and Shellfish/Crustacean advisory committees		
September–December 2024	Additional outreach and analysis. DMF drafts Revision to Amendment 3		
March 2025	MFC AC (Northern, Southern, Shellfish/Crustacean) review draft		
May 2025	DMF updates MFC on advisory committee recommendations and next steps		
August 2025	DMF provides update to MFC		
November 2025	MFC vote to select management options for Revision to Amendment 3		

^{*}Gray indicates a step is complete.