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Nov. 4, 2024

**MEMORANDUM**

TO: Marine Fisheries Commission  
Northern Standing Advisory Committee

FROM: Charlton Godwin, Biologist Supervisor  
Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Northern Regional Advisory Committee, Sept. 24, 2024, to have conversation between the Division and the Advisory Committee on options available in the Blue Crab FMP through the Adaptive Management framework adopted in Amendment 3

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The Marine Fisheries Commission's (MFC) Northern Regional Advisory Committee (AC) held a meeting on Sept. 24, 2024, at the Department of Environmental Quality's Washington Regional Office, Washington North Carolina, and via webinar. AC members could attend in either setting to communicate with other committee members.

The following Advisory Committee members were in attendance in person: Sara Winslow, Keith Bruno, Wayne Dunbar, John Worthington, Roger Rulifson, Thomas Newman. The following members were in attendance online: Missy Clark, Everette Blake, Jamie Lane. (Absent: Carl Hacker).

Division of Marine Fisheries (DMF) Staff: Charlton Godwin, Dan Zapf, Robert Corbett, McLean Seward, Jesse Bissette, Hope Wade, Kathy Rawls, Colonel Carter Whitten, Jason Rock, Brandi Salmon, Captain Daniel Ipock?

Public: Vance Henries, Dana Beasley

The Northern Regional AC had six members present in person at the start of the meeting and a quorum was met.

Northern Regional AC Chair Sara Winslow called the meeting to order at 5:59 p.m. The full meeting can be viewed online [Northern AC Sept. 24, 2024](#).

**APPROVAL OF THE AGENDA AND MINUTES FROM PREVIOUS MEETING**

A motion to approve the agenda was made by John Worthington and seconded by Wayne Dunbar. The motion passed unanimously. Sara Winslow then turned the floor over to Jesse Bissette, MFC liaison, for an update on NC meetings of Boards and Commissions. Jessie indicated that the AC would not be voting to approve the minutes from the April 9, 2024 meeting at this time. On Aug. 6, 2024, the NC Court of Appeals



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found that for a quorum to be met, members must physically attend meetings to cast votes. Members attending virtually can still participate in meetings; however, they cannot vote on action items. While this case was from a ruling involving the Anson County Sheriff's Department, this will impact votes cast by members attending virtually tonight. The AC will vote on the approval of the April 9, 2024 minutes at a future meeting. We are working with legal and the Department of Justice now to determine if virtual votes are valid, particularly if one of the virtual votes is a deciding vote. Jessie asked that members attend the next meeting in person if possible. Fifty percent of the current members plus one, must be present for a quorum.

### **PRESENTATION OF BLUE CRAB FMP AMENDMENT 3 ADAPTIVE MANAGEMENT POTENTIAL OPTIONS**

Robert Corbett, lead biologist for blue crab, presented a brief history of blue crab management in North Carolina, the 2023 stock assessment update, and the adaptive management framework. In 2023, the division began updating the 2018 benchmark stock assessment with data through 2022. Results of the model update indicate trends in estimated recruitment, female spawner abundance, and fishing mortality were similar to the benchmark assessment; however, the maximum sustainable yield-based reference points used to determine stock status for both female spawner abundance and fishing mortality both drastically changed with the expanded time series. Due to the magnitude of the change in reference points, the division requested an external review of the updated stock assessment which was completed in December 2023. The reviewers identified concerns with model specifications and results. They strongly recommended resolving these issues before basing management decisions on assessment results. Suggestions provided by reviewers can only be incorporated through a new benchmark stock assessment. Given concerns with the updated assessment identified by the division and external peer reviewers, the division does not recommend using results of the 2023 stock assessment update to inform management decisions.

The original North Carolina Blue Crab FMP was adopted in December 1998 and Amendment 1 was adopted in December 2004. Following Amendment 1 was Amendment 2, which was adopted in November 2013. The Amendment 2 adaptive management framework relied on annual updates to the Traffic Light Stock Assessment which provided information on the relative condition of the blue crab stock. The traffic light stock assessment gets its name by assigning a color (red, yellow or green) to data trends in comparison to established reference points. Based on results of the traffic light assessment updated with 2015 data, management action was required by the MFC. To improve the condition of the blue crab stock, the MFC adopted management measures via Amendment 2 adaptive management and incorporated them in the May 2016 revision to Amendment 2. A comprehensive review of the Blue Crab FMP was originally scheduled to begin in July 2018, but at their August 2016 business meeting, the MFC voted to begin review immediately to assess the status of the blue crab stock and identify more comprehensive management strategies.

A benchmark stock assessment was completed and approved for management use in March 2018. This assessment included data for 1995–2016 and concluded the stock was overfished and overfishing was occurring. The stock assessment projections indicated a harvest reduction of 0.4% was needed 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 of the date of plan adoption with a 50% probability of success of meeting the statutory requirement. Based on assessment results and projections, the division encouraged



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the MFC to consider a reduction of at least 5.9% which was projected to reduce fishing mortality to a level close to the fishing mortality target and have a 90% probability of achieving sustainable harvest. In November 2019, the MFC voted for preferred management measures projected to result in a 3.7% harvest reduction with a 50%–67% probability of success. However, at the following meeting in February 2020 the MFC changed their preferred measures lowering the projected harvest reduction to 2.4% with only a 50% chance of achieving sustainable harvest in 10 years, which is only slightly higher than the statutory required minimum of 2.2%.

Adoption of Amendment 3 also included the Adaptive Management framework and established specific steps to be taken once an updated stock assessment was completed. 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. For management to move forward, the adaptive management framework requires that management measures must be quantifiable. The framework also specifies the division will consult with the MFC Northern, Southern and Shellfish/Crustacean ACs prior to new management measures being approved by the MFC. Upon evaluation by the division, if a management measure adopted to achieve sustainable harvest is not working as intended, then it may be revised or removed and replaced as needed. While we do not have an updated stock assessment that can be used for management purposes, and are unlikely to for some time, there is substantial data suggesting management measures adopted in Amendment 3 are not working as intended and need to be revised using the Amendment 3 adaptive management.

McLean Seward next gave a presentation on recruitment and spawner stock biomass trends from the recent stock assessment update. Both the estimated number of recruits within the stock and spawner abundance indicate steady declines over the last decade. The update also indicated that fishing mortality has remained relatively unchanged since adoption of Amendment 3 management measures in 2020. Next Seward show data from the division's Pamlico Sound Survey (P195), which showed that for males and females of both life stages show continued declines or continued low abundance through 2022, with some of the lowest values in the time series being in recent years. Data from the division's Juvenile Trawl Survey (P120) also indicate a decline in male and female recruits with the last few years being the lowest on record. Declines in the annual commercial landings appear to track with juvenile and adult indices of abundance. Commercial landings of all blue crabs have been in decline since the record high of 67 million pounds in 1996. In 2022, the harvest level dropped to the lowest in the time series. In addition to declining harvest levels, participation and in number of trips has also declined in recent years.

Seward further noted other states along the Atlantic coast have observed similar declines in their commercial landings. In January 2023, the SC Department of Natural Resources released a status report for the SC blue crab fishery. The report concluded the SC 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. In the Chesapeake Bay the most recent dredge survey data indicates that although the 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 begun to better understand the population.



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All available information suggests the NC blue crab stock has continued to decline since adoption of Amendment 3 management measures in February 2020. Amendment 3 implemented management measures which were projected to result in minimal harvest reductions with a 50% probability of success. Since adoption of Amendment 3, commercial landings have continued to decline to historic lows. And despite low commercial landings, the stock assessment update indicates fishing mortality has not decreased. Abundance of all blue crab life stages as indicated from fishery independent surveys, are at historic lows. Specifically, recruitment has been at historic lows, which means we just don't have enough new crabs coming into this population to replace what we are harvesting. New management that is more substantial than what was adopted in Amendment 3 needs to be developed to reverse the declines we've observed.

Sara Winslow opened the floor to AC members to ask questions about the presentation before moving into discussion of the issue. Worthington asked what were the issues that the peer reviewers had with the assessment results that led them to recommend not using it for management? Corbett responded that it was mostly the drastic increase to the MSY reference point estimates from the assessment update compared to the benchmark assessment. Other concerns were with independent sampling programs that we could potentially tweak to make them more focused on sampling blue crabs rather than sampling a range of species. Newman asked to pull some graphs back up to compare the presentation to the Blue Crab Decision Document. He then asked if we knew why the MSY reference points changed so much, from 60–80 million pounds to 120–150 million pounds? Corbett responded the division is not sure why the estimates of the reference points changed and this is why the division is recommending not using the results to inform management. Although the trends and values in the estimates of fishing mortality and spawner abundance were very similar in the benchmark and the update, the big concern was the change in the models estimate of MSY reference points. Newman expressed concern that there would be so much uncertainty in the estimates from the benchmark to the assessment, and shared that same concern for other stock assessment conducted by the Division. Newman asked if we knew what changes needed to be done to make the assessment be more reliable. Corbett indicated the reviewers suggested it would take a new benchmark assessment. Dan Zapf also mentioned the peer reviewers provided a list of items that we could investigate in the next benchmark. These are all contained in the peer review report. Newman asked if there was a reason we are having so much trouble with our stock assessments. Seems like we have some assessments that were fine in the benchmark, then in the update we are overfishing for the entire time series. Newman just wanted to know what the Acs and MFC could do to help out with these issues. Zapf indicated that right now the main reason is we don't have any of our three stock assessment scientist positions filled. Newman also noted the numbers of crabs were super low in the Pamlico Sound trawl survey, even when harvest was very high. They don't seem to match. He asked if we did any sampling in the Albemarle Sound where most of the crabs are coming from? Corbett responded that the division does sample in the Albemarle Sound, however that program primarily captures adult blue crabs and is not a good indicator for juvenile abundance. Newman pointed out that we should have a dedicated survey for crabs as it is and has always been one of our most lucrative fisheries with the highest levels of harvest. Many states have a dedicated survey just for blue crabs and thinks NC should too. Corbett said that is completely understood but we have never had the resources to implement a state-wide survey for blue crabs at all life stages. Newman also pointed out the error bars are pretty significant, and wishes we could get the estimates a bit more precise. We need to do all we can to build as much confidence in these models with the public and ACs. Blake pointed out that the landings in 2023 had increased quite a



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bit compared to previous years, and maybe if the commercial landings were so much higher than maybe the math we were using for the stock assessment didn't play out correctly. Corbett pointed out that even though the landings in 2023 were higher than 2021 and 2022, they are still lower than most all other landings in the time series. Blake noted we've seen the decline, but the other thing is piggy backing on the last statements, how much of our crab catch is from trawl versus crab pots. I thought crab trawling was a very small quantity from a small area. Why not use data from pots. Corbett said yes, crab trawls make up a relatively small portion of overall harvest in most years, but in some years trawl landings can pick up drastically in the winter. Could we use trip ticket data from the fishermen, such as the discard data to inform the stock status. Corbett pointed out that trip tickets define the gear and location. Blake asked can we use that data for juvenile crabs and the discard data from commercial fishermen? Staff and commercial members of the AC advised that for a crabber to record or cull discards in the field while fishing would be impractical. Would take too long and/or you would have to have a separate crab by sex just to look at culls. Zapf indicated that the division does go to fish houses to measure, weigh, and sex crabs to gather information from the catch. Director Rawls wanted to speak to Mr. Newman's comments about a dedicated blue crab survey. We have been talking about that for 28 years since I've been here. For the last several years it has been a priority for us at the Legislature to get the funding for a dedicated crab survey but have been unsuccessful. Jamie Lane asked to see the graph of harvest numbers again. Thomas Newman also said it looks like we had a harvest reduction from 2016. 2016 landings were about 28 million pounds, and in 2022 landings were down to less than 10 million pounds. Zapf added that what the division really wants to see is a positive response to the stock from management changes, and we are still seeing declines in our independent surveys. Newman, if we look at the long-term time series, landings were really low from the 1950s to the 1980s. Did we do any management back then? Chair Winslow indicated that in the 1950s and 1960s there was no real effort for blue crabs from crab pots, it was all trot lines, so there was just nowhere near the effort like there was in the late 1980s or 1990s. Newman wondered if we had seen this type of decline and/or increases in landings before, and if they were due to active management or natural cycles in crab abundance at play with various market forces. Bruno asked how the division conducts sampling for crabs. Staff responded trawls. Bruno asked if we have had the same Captain over that time. Staff responded no, but sampled the same sets of stations through the years. Bruno asked if the gill net crew could also set some crab pots without cull rings and we could get a better understanding of what is going on with the crab population. This year we have had the best crab year in four or five years. The market was so flooded we couldn't sell them and we were forced into taking lay days. Bruno expressed his frustrations about recent management with spotted seatrout, mullet, and now with the division looking into adaptive management for the crabs, knowing we don't have a reliable stock assessment, etc. Making rules that adversely affect his livelihood everyday without solid information is extremely frustrating. Chair Winslow reminded the AC that at this time we would like to focus on questions to staff about the presentation, or anything crab related, before we get into Public Comment and then discussion among AC members. AC member Rulifson asked about the data that might be available. Have we looked at the water quality data over this last 10-year period. There is evidence that suggests climate change and warming waters are affecting a variety of species. We've seen Bull sharks popping into the Sound and that's the first time that has been recorded. Wondering if we are seeing so many crabs in certain locations, is it due to the environment shifting their population abundance. Staff responded that in the stock assessments environmental data is used to see if any of those variables are affecting abundance estimates from the surveys. Rulifson followed with a question about the latest research or hypotheses that maybe the majority of crabs are coming from the Chesapeake Bay, and if this theory is still believed or not. Zapf



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responded that the NC stock is considered to be a single unit stock. Rulifson indicated the Gulf Stream is weakening and shifting, maybe these changes are affecting recruitment. Winslow responded that normally this time of year the rivers are slam full of pots but very few are in the rivers now. Granted, she said she has only couple of recreational pots set off her bulkhead since June, baited, and fished every day, and caught one legal crab all summer. The crabbing is good in the Sound, but not in the rivers. All commercial AC members mentioned that this is the best year they have seen in several years. Director Rawls asked the staff to talk about what other states are seeing in their fisheries and indices. Staff responded states from Chesapeake Bay down the coast are seeing the same declines in landings and independent indices of abundance. Staff also mentioned in the Albemarle dealers have had to tell fishermen to take lay days because the market is flooded. Dunbar mentioned that the red drum population is so large, they are consuming a lot of crabs as well as other important species. Jamie Lane talked about an article she read from Chesapeake Bay discussing the impact of invasive species blue catfish on not only finfish but also on blue crabs. Could we allow more commercial harvest on blue catfish, which will help perch population, river herring, crabs, and all other stocks that are at low levels of abundance. Staff indicated the division has had many discussions about increasing blue catfish harvest and is actively trying to allow all forms of harvest of blue catfish that will not have adverse impacts on other species of concerns. Through the Commercial Fishing Resource Fund (CFRF) a study by University researchers looking at blue catfish stomach contents had been funded. Newman asked if that study is going to be able to quantify how much of an increase in the crab population would occur if a certain amount of blue crab were removed.

### **PUBLIC COMMENT**

There were two members of the public that provided comment. Since there were only two members present, they were given additional time to provide comment.

Dana Beasley: First of all thank you, thank you for everything you've done, everything you've said. My first problem is three minutes. I'm here trying to discuss my livelihood and I've got three minutes. The Chair reminded him that they are allowing more time tonight because of so few people. Dana said that in most situations only three minutes are allowed. That's not enough time. He went on to say the AC members made a lot of good points. He said he has met Corbett at Endurance seafood measuring crabs. I've heard you say things we are trying to control. You can't control things that are under water. Mother nature is going to control it. We can't control it. Second thing you just brought up was drum, blue cats, turtles, stripers, flounders, they are all aggressive species and they are eating the mess out of blue crabs. Next thing is how do you define a juvenile recruit? Corbett responded for the stock assessment it is anything under 5 inches. If you do your trawls, most crabs are caught in pots. Set a peeler pot, no cull rings, put some bait in it. I set one for pinfish with bait had 85 pinfish and 32 little crabs. In one day. Right by Currituck Bridge. The crabs are out there your just not seeing them because your not bringing them in. Try using pots. You trawl in the same places, you got to move to where the crabs are. Have additional sites that you trawl. Water quality. We just had all this rain, dead water, crabs get into pots can't get out, pushes people to other places, landings are affected by this. If you have lay days that will affect landings. Your talking about sustainability, sustainability of the crabs we are catching, we should be talking about sustainability of our livelihood. Your graph shows the crabs going down but look at the number of trips and fishermen and landings, and look at the catch per crabber. I bet it is the same. The crabs haven't declined there is just less effort. No young crabbers getting into it. The youngest crabber might be 40. All kinds of factors why landings are down, not



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just population decline (weather, the females, the spawning stock, etc.). There are areas in the spring where females sponge out but they have had less crabs. We had a big storm this spring and they moved southeast, and the guys peeling missed out, the crabs moved north. Too many factors that you can't see under the water that you can never control. You don't have solid baseline data. The last stock assessment was 2016. If you want to see what we are catching come out with us anytime. In Currituck sound, if it's not included in the juvenile recruitment it should, there are little crabs all over up there. I hope it's not falling on deaf ears, but I'm with Bruno, there is not solid enough data on this. If you look at pounds per trip landings are solid. We don't have picking houses, nowhere to send the crabs. Imported crab meat is killing this country. Other one is sea turtles. They cost me between \$5000-\$10,000 each year in gear and lost crabs. They turned over a whole line of pots the other day rolled 30 pots in a row. Didn't tear many of them but they rolled them and I was averaging 20 crabs a pot so 30 pots is roughly 5 bushels of crabs plus a flat and a half of bait. That's \$160 out of my day. That's huge. The economic side of this is where we really need to be focused. This isn't drum fishing and trout and striper fishing. No one really recreational crabs. There's always crabs for the rec guys. If I want to catch the last crab and put us out of business, let's do it. It's our livelihood. Just like flounders, if you bring them all back, there will be so many crabs we won't get paid anything. I flounder fished last year. Everyone in a 6-day window. All gears were open, everyone fishing. I got paid \$1.50 a pound for flounder. When in June, July, August, I could get \$5.00 a pound for that same flounder. You got to spread it out. It's all about the money. It's not about how many crabs there are. They had rather crab and get 20 pounds a pot and get a nickel a pound for them. I'd rather get three pounds to the pot and get \$2 a pound. I had rather come in and unload 10 bushels of crab at \$70 bushel. Yesterday, I unloaded 42 bushels and I'm going to get \$18-\$20 a bushel. I'm not utilizing the resource. Find a way to get more money for the crab. That's what we need to do. It's about what's out there and what it's worth at the end of the day. Everything is going up, bait, wire. Like Bruno said, when I leave the dock I'm your paycheck a week in the hole probably. When I come in and Kissi tells me crabs dropped today, I'm like great, maybe I went for nothing today. If don't get paid today. I still have to pay my mate but I don't get paid. It always goes down quicker than it comes up. That's my piece thank you for listening.

Vance Henries: Carolina Seafood in Aurora. I'm going to reiterate all of the points that were made here tonight I believe in and had already intended to speak on. Thank you for your time and for what you all do. I believe we've got a way out of balance ecosystem. We are protecting predators, and those predators are having impacts on other species. I see that as a big problem. Other problem is water quality, not water temperature, or salinity, but others such as non-environmental factors. South Creek 30 years ago was stated that it was the most productive fish estuary in the state. Now there's not much that comes out of it. Things like that need to be looked at big time. I don't think it's overfishing. Every time there's a decline it's blamed on overfishing. I just don't believe that. That's my two cents worth, thanks for listening.

#### **COLLABORATIVE CONVERSATION BETWEEN THE DIVISION, ADVISORY COMMITTEE, AND THE PUBLIC**

Chair Sara Winslow closed Public Comment and turned the floor back over to the AC to discuss potential management options. Sara noted in the documents provided there was a summary sheet of any potential things considered previously with the pros cons and complexity. Blake comments that when he looks at the management options none of them give you a number they just give you how hard and pros or cons. First one is limit crab trawls but that's the least amount of harvest coming from that gear. I would say that we



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don't have enough information to make a decision at this point on the reduction, but I ask that whatever we do let's make it as easiest as possible to the crabber. The Chair pointed out to Everette that these are initial options to seek input and will have numbers associated with the reduction if that option is developed. Dunbar made a motion status quo, nothing. Like the gentleman said, and I'll say, I've been in the crabbing business 50 years and there's too many factors that mother nature puts in that you can't control any of this except maybe get rid of some of the predators. Other than that, there is just so many factors involved we can't control it. Like shrimp, you can't control them. I make a motion of status quo. Second by XXX Motion passes. Chair Winslow asked if there were any other recommendations from the AC? Rulifson asked what affect does it have on the blue crab industry that we have tried to reduce bycatch in different fisheries? What do the blue crab have to eat out there. We've had great blue crab fisheries for all these years, and now that we've reduced bycatch blue crab landings are declining. Dunbar talked about the turtle excluders and fish excluders, which may have reduced the amount of bycatch to eat. Winters are not as cold. Oyster beds were alive and prosperous. Crabs loved to get around oyster beds. Rulifson asked, I wonder what the other states are doing to reduce bycatch and therefore reduce the amount of food that the blue crab has to forage on. Two decades ago, B.J. Copeland and I put in a study to look at just this issue, but it never got funded. We wondered if it would have an impact. Dunbar noted that years ago when there were plenty of fishermen they kept the predators in check. Year-round flounder fishery that killed a ton of skates, the haul seiners caught a lot of drum, but now we don't keep these predators in check. Clark asked if we had explored every possible option to get rid of these blue catfish. Maybe back to overnight soaks of gill nets and electrofishing to keep these blue cats down. They eat 5-8% of their body weight everyday out of our estuaries. The Chair noted that wouldn't be in the blue crab plan under adaptive management. Staff noted it would have to be quantifiable and that would be difficult to quantify. But that is certainly something that could be addressed through another option. Newman pointed out that it is disappointing that we don't come up with a recommendation other than status quo, but we want to do something, we want to make things better. The reason fishermen are so frustrating right now we have so many natural deterrents that limit our ability to harvest fish. Like the four-day mullet season right now, the weather is insane. You may get periods where you can't fish for seven or eight days in a row. We are already seeing natural reduction in harvest because effort is down, then the fish markets go away. There is escapement from that. Also I wanted to question to Director Rawls on the the 2 and 10 statute. It says if there is a lack of data, we could go down the 2 and 10 rule. How could we go down that road if we don't have the necessary data? Director Rawls said that can definitely be part of the conversation and it is always difficult when a stock assessment does not give you what you need. We are in this situation now that we are using previous stock assessment and independent indices showing these declining trends, so that is what we are trying to come up with. One of the staff introduced the questions of where are these crabs located? It's not just a NC thing, there is something going on up and down the coast. I think we would all agree that what we would like to see is a stock assessment that we feel is reliable however this is not what we have and at this point we should rely on the trends in the data we have, both dependent and independent, to guide management recommendations. Staff Godwin wanted to address Rulifson's question about the bycatch issue. We looked at blue crab landings all through the east coast and Gulf of Mexico although we didn't show a lot of that, but in looking at Gulf landings, Louisiana is really the only state that has seen relatively consistent landings of blue crabs though the years, and they have many more shrimp trawlers in the gulf and also have turtle excluders and fish excluders to reduce bycatch, so at least for LA. It doesn't seem that reducing bycatch has reduced blue crab population. Corbett added that some management measures may be developed that could potentially help market prices, such as bushel





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limits during certain time periods. Bruno added that it is a supply and demand fishery. MD and VA supply a lot of crabs and can often flood the market. We would have to control their harvests and number of crabs coming on the market to have any effect. Director Rawls asked, is the demand for crabs as it is for other seafood as well or is the demand even there? Bruno said it peaks on the Fourth of July from the spring in MD and VA. That's our major markets. As soon as it first gets warm, the first nice weekend, they call down here looking for crabs. By the Fourth of July they start catching more in the Chesapeake, so you get less demand, more crabs, so that's when the price falls out and we may have a harder time moving crabs. Rulifson asked is this a marketing problem? After the Fourth of July could you sell it to the Midwest and make profit? Bruno said it is a very delicate product. They want them alive. There are some industry leaders trying to create different product, frozen crab, etc. but we just don't have the infrastructure we used to have. We don't have the picking houses, we don't have the people. We could waylay this into a political issue. We don't have the imported help we used to have. We have lost infrastructure and then you lose market share. Louisiana is one of our biggest competitors in selling crab to VA and MD. I'd have to look at the numbers but after the Horizon oil disaster for a few years LA had no crabs, and we did great, because of less competition. In years past the Chesapeake hasn't had a lot of crabs, but they have really cleaned up that Bay, they went after the major polluters upstream and now they have more crabs, and oysters are doing great. And the Bay has now come back because they have cleaned up the waters. They do their annual survey of abundance and they say we don't have any young crabs but they still kill it. We've had a tough couple of years here in NC, no doubt. There was discussion about the efficiency of crab trawls as a sampling gear. Worthington asked, you said you didn't have the employees to do the second part of what you needed to get done? What are we lacking for employees? Staff responded they were talking about the stock assessment staff? Worthington said he is aware that the Legislature doesn't provide the funding for law enforcement, so what do you need from the Legislature to get these positions filled? Director Rawls mentioned, the division is having trouble hiring staff all across the board. The DMF cannot compete with the salaries of these positions. The DMF can compete across states but not with the Federal Government. As a state agency the DMF just can't compete. We train employees and then they go to better paying jobs. The DMF can't hardly even get applicants. It is a struggle. Currently the DMF have been having internal discussions about what other options do we have available for assessing stocks if we don't have a stock assessment scientist.

Corbett added that we really do want input on potential management measures. Even if its not on Table 2, think of things that could potentially help with market issues. If we move effort to a different area, or how about sex specific management measures, just think about these things and please provide us input on what measures would work and what ones would not.

Jesse Bisette also pointed out that we wanted to bring this to the AC as early as possible to provide input on how these different options available on the table to let us know how these options will affect the industry, which ones would work. We really need input from industry. We can do it after this meeting if we need to, but we really need your input.

Blake discussed that if we had to do anything, regional closures would probably be better than statewide blanket closures. Hope they would be less impact on the fisherman. We could shift these based on how landings are going during the year. All the other ones it seems like they all put a lot more work on the fisherman.



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Corbett said yes these are the types of input we are looking for. And we have talked about regional closures. However, sometimes if you close a small area, everyone is just going to move out of that area and go to another area. Regional closures might have to be relatively broad, because if they are too small, folks will just move to the other side of the line.

Bruno mentioned another effort switch to look at is when I can't crab, I go gill net. That is going to put more pressure on species like spotted seatrout, etc. Fishermen have to have something to do, the bills keep coming. If I can't crab, I got to do something else. That will just put more pressure on other species.

Rulifson asked when was the moratorium? When there were so many Vietnamese that came into the industry from Louisiana? Is that the blip in landings you see in the long-term landings data? Back in the late 70s early 80s?

Jesse wanted to look at the Decision Document, and asked Keith and Wayne, if we are looking potential bushel limits. So when you talked about the market and demand when we are landing a lot of crabs and the market goes down and you have to take lay days, what would be the drawback of having bushel limits that might prevent that? Bruno responded that it's not a local market. If we start limiting our guys then that is just going to give more market share to the guys in MD and VA. Staff mentioned that MD and VA already have bushel limits and have for years. Dunbar said VA and MD depend on us Feb-June. Then when they open up in VA and MD they flood the market on female crabs. Come after July 4<sup>th</sup> they really don't buy crabs like they were in the spring. In those months they depend on NC and LA crabs. Jesse pointed out we could do bushel limits on a seasonal basis. So we wouldn't want to have a bushel limit in the spring, but we could that later in the year? Bruno asked aren't we in that situation already? If the market is not there we stop catching as many crabs. The market takes care of that.

Newman also mentioned if we have closures and then something happens to the markets in other states, and we don't have product to sell because of a closure, then we might lose that market altogether. That is what happened with bluefish. We had to take reductions because of the quota, and now we've got more bluefish than anyone's ever seen, but we lost the markets we had because of several years of reduced harvest. Bruno says the market acts as harvest reductions. We may tell our crabbers that you can't crab for a couple days during the week because the market can't handle all the crabs. When there are so many crabs there is escapement through lay days and reductions.

Dana Beasley said your talking about a 2.2% reduction. In my log book I've had 12 or 14 lay days since the last August and September, easily averaging 25 bushels a day. So 2.2% reduction on 16 million pounds, 352,000 pounds for the reduction. 25 bushels a day times 12 is 300 bushels is 12,000 pounds. 352,000 pounds divided by 12,000 lbs is 29 crabbers. Easily 29 crabbers in the state have had 12 lay days, and some of them have had more, and some were harvesting more than 25 bushels a day. So that's easily your 2.2% reduction right there in lay days just since August of this year. Plus you don't know what Mother Nature is going to do. Like mullet, can't fish on the weekends. It blows all week and is pretty on the weekend now I've had a 7 day closure not just a two day closure. Fish and seafood don't have a calendar, they don't know what day it is. When we are fishing, we go fishing when we can and catch fish. And now you've pigeonholed everyone



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*Governor*

MARY PENNY KELLEY  
*Secretary*

KATHY B. RAWLS  
*Director*

in to crabbing. Like Ms. Winslow said about crabbing 30 or 40 years ago. There were no crabbers back then. Everyone long hauled. Everyone fished long nets. They blocked off the Pamlico sound into square mile grids and you picked a grid and had to call in what grid you were fishing, if I'm not mistaken. Then long netting went by the wayside. Maybe they caught them all I don't know. Then here comes shrimping. No one used to shrimp, shrimping was sketchy at best. Then everyone was shrimping. Long netters hated crabbers. Some guys got into crabbing. Made good money, next thin you know lots of folks crabbing. Now you can't catch a drum, can't catch a flounder, can't catch a striper, what you got? Crabs. We do have window and a season. Oysters, look at oysters. You got only two weeks around Thanksgiving. The oyster beds have gone to crap because nobody keeps up with them because you can't fish them. Look at flounder. You make a short season and put everybody in at one time, they flood the market and flounder aren't worth nothing. The time thing doesn't work. We got to go fish when we can go.

That was the end of AC discussion. Jesse Bissett reminded the AC the next meeting will be Oct. 8, at the Washington office, and the discussion will be the draft of Spotted Seatrout Amendment 1. And because of the court ruling we are asking that everyone attend in person. Bruno asked if that date could be changed. That's one of the days I'm going to go flounder fishing. Only getting six days this year probably. I'm not going to be here but I am interested in that discussion. Jesse said they probably will not be able to move the meeting date at this point, but he would call Keith tomorrow to discuss more.

Bruno made a motion to adjourn. Rulifson seconded. Motion passed by unanimous consent. Meeting adjourned.