



ROY COOPER
Governor

MARY PENNY KELLEY
Secretary

KATHY B. RAWLS
Director

Sept. 27, 2024

MEMORANDUM

TO: Marine Fisheries Commission
Southern Regional Advisory Committee

FROM: Chris Stewart, Biologist Supervisor
Tina Moore, Southern District Manager
Fisheries Management Section

SUBJECT: Meeting of the Marine Fisheries Commission's Southern Regional Advisory Committee, Sept. 25, 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

The Marine Fisheries Commission's (MFC) Southern Regional Advisory Committee (AC) held a meeting on Sept. 25, 2024, at the Department of Environmental Quality Wilmington Regional Office, Wilmington, North Carolina and via webinar. AC members could attend in either setting and communicate with other committee members. Public comment was received in-person and the meeting was streamed to the public not in attendance via YouTube.

The following Advisory Committee members were in attendance: Fred Scharf, Jeremy Skinner, Pam Morris, Ken Siegler, Sam Boyce, Tom Smith (Absent – Tim Wilson, Michael Yates, Jason Fowler, Jeff Harrell, and Truby Proctor)

Division of Marine Fisheries (DMF) Staff: Chris Stewart, Tina Moore, Jason Rock, Dan Zapf, McLean Seward, Robert Corbett, Garland Yopp, Ashley Bishop, Debbie Manley, Jessie Bissette, Brandi Salmon, Charlton Godwin

Public: Glen Skinner, Ronnie Williams. There were 9 viewers on YouTube.

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

Southern Regional AC Chair Fred Scharf called the meeting to order at 6:00 p.m. The Chair opened the floor for the AC members and DMF staff to provide introductions.

APPROVAL OF THE AGENDA AND APPROVAL OF THE MINUTES

Jessie Bissette indicated that the AC would not be voting to approve the minutes from the Apr. 10, 2024 meeting. On Aug. 6, 2024, the NC Court of Appeals 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 Co.

Sherrif's Department, this will impact votes cast by members attending virtually tonight. The AC will vote on the approval of the Apr. 10, 2024 minutes at the next meeting (Oct. 9, 2024). 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. Fifty percent of the members plus one or six people must be present for a quorum for the Southern Advisory Committee. Right now, it's looking like the virtual votes will not count. Tom Smith noted that is the way it works for a committee he sits on at the county level. Jessie noted this meeting is to share ideas and there are no planned action items at this meeting requiring a vote.

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 from 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 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 may be adjusted using the director's proclamation authority. For management to move forward, the adaptive management framework requires 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 spawning 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 presented data from the division's Pamlico Sound Survey (P195), showing continued declines or continued low abundance through 2022 for males and females of both life stages there have been continued, 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 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 South Carolina Department of Natural Resources released a status report 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. In the Chesapeake Bay, 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.

All available information suggests the blue crab stock has continued to decline since adoption of Amendment 3 management measures back in February 2020. Amendment 3 implemented management measures which were projected to result in minimal harvest reductions with minimal 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 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.

Ken Siegler noted the last Blue Crab AC asked that a pot study be conducted. He further noted that a trawl survey doesn't work for crabs. Staff indicated there is a lack of funds. Morris noted that the annual blue crab commercial landings is not useful due the drop of participants and the additional regulations that have been in place which impact landings. Scharf asked about the summary table of potential management

options. It notes staff has reached out to stakeholders, and asked if there has been stakeholder engagement outside of the AC. Corbett said many options have been brought up in the past and staff has reached out to people at fish houses and many of these options are ones that have come out of those conversations.

Boyce noted that in Amendment 3, the target was to reduce landings by 2.2%. He asked if the assessment can't be used, is there a statutory requirement saying we must implement a certain reduction. Corbett noted that not without a usable assessment, we need to increase the reduction to address stock concerns. Dan Zapf added the landings went down, but likely not due to management measures. Seigler noted that everyone is quitting. Morris added crabs are an annual crop, you don't need that many crabs and she disagreed with additional management. Boyce noted that Chesapeake Bay is having a similar issue. Seigler said the other states tried regulations to prohibit harvest of female crabs and it didn't work. Morris noted that it didn't work due to the nature of crabs and where they lay their eggs. The males are not there. Morris asked what the division was doing about predation, we should increase red drum and striped bass landings so less are eating blue crabs. Corbett again noted adaptive management requires measures be quantifiable. Morris added the only thing we can quantify is how regulations impact humans. Scharf added what's obvious is that what we are doing is not working. The stock has been declining the last 20 years.

Seigler asked what the relationship between female crab abundance and recruitment is. Zapf explained the crab life history and there is a poor relationship, as many factors can limit recruitment. Staff noted that they can spawn up to seven times. We would hope to see more recruitment if we protected the females. Smith noted that the MFC went with a 50% probability of success, and it didn't work. We need to pick options with a higher probability of success. Every time we pick the minimum, it gets us nowhere, it has happened for multiple species. Seigler disagreed and noted that VA had no harvest of female crabs, and they are still in the same situation as us and the states to the south. Morris again noted that predation was the problem as well as water quality. Smith said water quality issues were outside of DMF's control. Boyce remarked if we always select 50%, half of our plans should be working. Seigler and Morris didn't agree with the results of the assessment and noted it was not what they were seeing in their pots.

Seigler noted again limiting sponge crabs has been tried by other states and doesn't work. I have an issue with a 10-day soak period where people run 150 pots. The success of the spawners is something we can focus on. The pinfish are eating all the eggs if they are in the pot that long. If we could have a three-day soak period. You get good fresh crabs with high survivability. The longer the female crab stays in the pot; she will drop all her eggs. Corbett said we currently have a 5-day soak period. Many complain about weak markets; thus, they need to let them soak longer. Seigler noted that every day a crab sits in the pot she is losing weight and that the current regulations for sponge crabs don't align with the 30-day black and brown sponge life stage. Noting if you extended the black and brown into May, it would give the female crabs the opportunity successfully spawn.

Seigler said he disagreed on limiting the harvest of the sponge crabs, noting that other states didn't see the benefits. Morris noted sponge crabs are mainly on the east side of Core Sound because the water has higher salinity. The larger male crabs are in the brackish water on the western side. The Central AC voted on the regulations the way we did because at the time we felt like it was going against our crabbers. We don't have as many male crabs on the east side. Staff noted that everyone fishes different in each region. Seigler added that in the southern region, it is totally different here. I've found brown sponge crabs far up the creeks. Corbett noted that may be due to the salt wedge. Thus, the division has sampling stations higher up rivers to account for this.

Morris noted crabbers in New Bern have strings of 400 pots and fished up to 2,000 pots, fishing different strings on different days. There used to be a lot of bad blood between the crabbers and shrimp trawlers, but nobody is fishing. Now there are hardly any pots. It's not the same effort that it was 20 years ago. Staff noted that technology is better and people still fish 1,200-1,600 pots. Noting that catch per unit effort should

be increasing but it's not. Corbett asked if there was anything that could be done economically. Can we get more people involved, and are there any efficiencies? Morris noted people are fishing and making money, but they are having to do other things to supplement their income. There is a lot of overhead, nobody is getting into it. It's expensive. Those with the larger strings of pots are boats with families of three or more putting all their money in one pot.

Morris asked about crab trawling for hard crabs and peelers. In Core Sound crabs shed out first on the east side, we are still able to make good money. The soft crab trawl is prosecuted in shallow water. It's not like hard crab fishing. They get good money for those first crabs. They go across the sound and get green-line shedders because they shed out later. I used to crab for hard crabs. It's done at a similar time. It was an in-between fishery; in between sink netting in the winter and shrimping in the spring. We used to catch conchs (whelks) and it was just as good money. Staff indicated that the division looked at the hard and soft crab trawl fisheries. We have seen an uptick in trawling as well as an uptick in conflict in areas where potting and trawling overlap. Morris noted that trawlers fishing for soft crabs are fishing in a different place. The hard crab trawling occurs in December, mostly the end of February. They emerge out of the mud in March. Corbett noted that many fishermen were using trawls because they were not coming out of the mud and not potting. Morris added you can't catch them in the mud.

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

Glenn Skinner, Executive Director of the North Carolina Fisheries Association, in the 1950s and 60s there wasn't too much crabbing and then there was a big jump in landings. What caused this? I think the decline in the landings is part of a larger cycle, the decline we are seeing is just part of the cycle and we will see an uptick eventually. We see this with other fisheries as well. Corbett noted the markets were different, and their value was low, thus effort was low. The peeler fishery has changed over the years as their value has increased, now more trips are occurring. Skinner noted the sponge regulations were put in place following the decline, it didn't work, and it was later dropped, and the crabs came back. I'm not opposed to management. Zapf noted that historically not much has been done over the years. Morris said in the 1950s something was done, and it was done away with. Jason Rock indicated that the sponge crab harvest regulations were dropped when the spawning sanctuaries were implemented. Since their creation they have been modified over the years with the different amendments. In 2000, a study evaluating spawning sanctuaries found that just as many female crabs were caught outside of the sanctuaries as inside; therefore, indicating that we needed to expand the sanctuaries which we have done over the years. Skinner noted that his family didn't think the sponge crab regulations did anything. We don't want to catch the last crab regardless of what you heard last night. If you go from the 1990s to the 1960s, you must look at it holistically. Have the other states seen similar declines and rebounds? Has it happened elsewhere and is it environmentally driven? Seigler noted you have to have east winds to have crabs. Rock noted there have been studies that show that environmental changes affect recruitment. The reality is that we still must figure out what to do considering the changes. Morris added why do anything, you are not going to get the last crab. It's not the effort, it's happening anyway no matter how many people fish. We must look at predation by red drum. When the red drum restrictions came the decline blue crabs started happening.

Ronnie Williams, commercial fisherman and fish house owner, noted that there is a blue catfish problem in the Cape Fear River however there is no market. While I do catch some blue catfish and sell in my market, the ones I catch they are full of crabs. The USDA regulations really impacted the wild caught catfish. Everything must now go through USDA plants. I can't cut a catfish currently. Corbett noted that the regulations were pushed through by federal government and that not all processing plants can meet the guidelines. Morris asked how blue catfish got here. Staff indicated they were introduced, and they have taken over our waters.

Bissette noted at last night's AC meeting we heard many crabbers had to take lay days due to the markets and asked if any options would benefit the markets and still get reductions. Morris noted that crabs demand top dollar so there isn't much you need to do. The lack of picking houses has impacted the landings. In Davis, the biggest crab picking plant is gone, but they are still making crab cakes. But it's not local caught crabs they are using. Staff noted the division wants to work with the industry. We hear it's supply and demand, but why is the cost still so high per bushel. The money doesn't appear to be going back to the fishery. Morris indicated the crab market is much like shrimp, in 2004 the price of shrimp didn't change when fuel prices went up. Carteret Catch is trying to address this, but it is difficult, many restaurants are selling things as local when they aren't. There is also a shortage of people who locally process seafood.

Jeremy Skinner asked about how the division collected the P120 data. Seward described the trawl and survey design. Glenn Skinner noted that what the division used was not a crab trawl, a shrimp trawl rides off the bottom and is ineffective at catching crabs. We need a designated crab survey. Skinner said there is a need to address the issues with the stock assessment and collect better data. He further added that crab abundance can change quickly and often; however, it's hard to discuss and debate what needs to be done when I don't fish for crabs anymore. You really need to hear from the people who are in it, some people are having to take lay days because there are so many crabs, it's hard to understand how things are as bad as the assessment says they are. Seigler noted gulf stream doesn't seem to bring the sargassum and the small crabs in like it used to.

Scharf asked if there is any other options the AC wanted to see and asked staff if the matter was coming back to the AC? Staff indicated that it would be brought back later; however, the division was looking for additional input prior to developing the options any further. Seigler noted that for black and brown sponge crabs there are two different time frames that need to be accounted for. Noting that it is the end of April in the southern part of the state and end of May for the northern. Staff noted that the current sponge brown-black crab moratorium could be examined regionally; however, enforcement can be an issue when things are based on color. The brown-black sponge crab period is short and typically only is a 10-day period. Seigler noted that the gestation period is about six weeks long from start to finish, and he would like to keep the black and brown sponge moratorium but look at regionally. Like you said, it's a 10-day spawning period, but if she is in a pot, the pinfish are picking the sponges apart and it won't matter.

Morris asked about what committees this was going to. Staff indicated that it was part of Amendment 3, and it doesn't require a full amendment or FMP AC. Adaptive management doesn't require a stock assessment but requires consultation with certain regional and standing ACs based on the measures chosen. Corbett again noted that only quantifiable measures will be considered. Non quantifiable measures can only be put in place with another amendment. Bissette noted the division wanted input early. Even if we don't have the Blue Crab AC together, it doesn't mean we aren't getting public input; thus, these meetings.

Regarding non-quantifiable measures, Glenn Skinner noted that he had a conversation with Steve Poland the former section chief about an invasive species FMP. Invasive species keep coming up, could invasive species FMP be developed to control them to ensure the viability of economically important species? Corbett said there is an invasive species task force that a collaboration of several agencies to address this issue. For blue catfish, it's a coastwide issue. The Chesapeake Bay is working on a plan, and if successful we would like to mirror it. One of the issues with blue catfish is, there is a lack of market for them. So, there is not much incentive for fishermen to fish for them. Other states have problems with blue catfish populations, and they can flood the market and sell catfish cheaper due to lower shipping cost. The USDA certification is another hoop for fishermen to jump through. Virginia has looked at electrofishing, but it doesn't seem like it has an impact. Other grants have been given to fish processing plants, but the value is just not there. Some people like trophy catfish, so it's difficult to manage for all users. In the Albemarle, trotlines are a good method for catching catfish, but the market still dictates the effort. Staff noted USDA certification was put in place federally to combat cheap imported catfish flooding the market. Virginia and

Maryland law makers are working to change the certification to not include wild caught catfish. The certification is being evaluated as we speak to help support local fishers. Skinner noted that the NCFA has been working with the NC Farm Bureau to address the USDA regulations.

ISSUES FROM AC MEMBERS

No issues were provided by the AC.

Bissette noted that a blue crab pot survey would take a lot of funding and support. He further noted that people need to talk to the legislators about getting more funding to the division to address needs such as this. Seigler indicated that he was under the impression that the survey was in Amendment 3 as approved by the MFC. Jason Rock noted that it was not part of the amendment, but we have put in a request and have put together a sampling design and cost estimates. We will need funding and new staff, it's more than just putting pots in the water. Morris noted she was frustrated that every time a model gets updated, things appear to decline. She asked that the old models be reevaluated in addition to better indices.

Bissette noted the AC will be discussing spotted seatrout management at the Oct. 9, 2024 meeting. This will be an in-person meeting and will be held at the Wilmington Regional Office.

Pam Morris motioned to adjourn, seconded by Samuel Boyce. The meeting ended at 8:49 p.m.

DRAFT