

**Virginia Marine Resources Commission  
Crab Management Advisory Committee Meeting  
VMRC Conference Room**

**January 25, 2010**

**Members Present**

Hon. Rick Robins  
Ken Diggs, Jr. for Joe Palmer  
Daniel Dise (via teleconference)  
Ty Farrington  
Johnny Graham  
Douglas Jenkins, Sr.  
Hon. John R. McConaugha  
Chris Moore  
Tom Powers  
Ken Smith

**Members**

**Absent**

H. M. Arnold  
Jim Casey  
Marshall B. Cox, Sr.  
Jeff Crocket  
John W. Freeman, Sr.  
Paige W. Hogge  
Ronald L. Jett  
Peter Nixon  
Joe Palmer

**VMRC Staff**

Jack Travelstead  
Rob O'Reilly  
Joe Grist  
Mike Johnson  
Stephanie Iverson  
Laura Lee  
Alicia Nelson

**Others Present**

Dr. Rom Lipcius  
Mike Sebo  
Danielle Dutton  
Roger Parks  
Megan Brook

Meeting minutes were taken by Alicia Nelson.

**I. Introductions/Announcements**

The meeting began at 6:00 p.m. There were no introductions or announcements.

**II. Approval of the minutes from the November 23, 3009 meeting**

Mr. Jenkins was concerned that the comments on page 4 of the November minutes about white sign peeler waste and sook mortality were misleading. Mr. Robins said that staff would review the audio for the transcript from that portion of the meeting (those minutes have been revised and are attached to the January, 2010 minutes).

Because a quorum was not present, the vote on the minutes was deferred until the next meeting.

### **III. Oldbusiness**

#### **a. Continued discussion of Turtle/Bycatch reduction devices, review of supporting science—Rom Lipcius**

Dr. Lipcius introduced Megan Brook and her graduate research on bycatch reduction devices (BRDs) for reducing the bycatch of diamondback terrapins. Dr. Lipcius gave an overview presentation on BRDs. He noted that all of the studies were performed in marsh systems only and do not pertain to seagrass beds. There is a pilot study beginning on seagrass beds. This study predominantly pertains to recreational crab traps, that are generally set near the shore in predominantly shallow water.

Dr. Lipcius said that diamondback terrapin have been recommended for inclusion on the threatened and endangered species list and that BRDs are required in all recreational traps in Maryland and Delaware and in waters less than 150-ft wide at mean low water in New Jersey. Data from the study show that traps with BRDs caught very few terrapins (of 48 terrapins, only 2 were caught by traps with BRDs). He also presented data showing that BRDs had no effect on the number of crabs caught. The study found no consistent effect of BRDs on crab catch, and the average size of crabs in the traps was higher in traps with BRDs than in those that did not have BRDs.

Dr. Lipcius concluded that BRDs were very effective in reducing terrapin entrapment. BRDs will likely have no effect on the crab catch but may slightly increase the number of legal crabs caught, decrease the number of sublegal crabs, and increase the size and biomass of crabs caught. He mentioned there were finfish mortality reductions with the BRDs as well. He recommended that BRDs be required in all recreational crab traps and added that implementation would require additional discussion. He also said that recommendations for the commercial fishery would require further study.

Mr. Robins asked if the next phase of the study would look at cumulative effects of finfish interactions, and Dr. Lipcius said that it would.

Mr. Jenkins presented samples of large male blue crabs and demonstrated that they would not fit through BRDs. He said that he and his son had tried the BRDs and believed that they would affect the commercial catch. He said that he is worried that BRDs will eventually be required in the commercial traps.

Dr. Lipcius replied that there weren't any data that justified implementing BRDs in commercial traps, and Mr. Jenkins felt that anything relating to BRDs in commercial crab pots should be stricken from the report.

Mr. Smith described a study done in North Carolina that found BRDs significantly reduced the catch of good crabs. Mr. Robins asked Mr. Smith to send that study to the staff as well.

Dr. Lipcius clarified that the current study only pertains to recreational crab traps in shallow waters. Preliminary data found a reduced catch in seagrass beds.

Mr. Powers was concerned about distinguishing between a recreational crab pot and a commercial crab pot from any distance away. He argued that the study did not only apply to recreational pots but any crab pots in shallow water.

Dr. Lipcius replied that the majority of recreational crab traps are set in shallow water. For the commercial traps, they have not studied it comprehensively enough to move forward with the Commission.

Dr. Lipcius said requiring BRDs in recreational crab traps would be an immediate conservation gain for diamondback terrapin, and it's not a loss to the recreational crabbers. There are not enough data to extend it to the commercial crab fishery at this time.

Mr. Powers said that it would give commercial crabbers ability to catch larger crabs that recreational crabbers could not, and Dr. Lipcius replied that it effectively creates a large slot limit for recreational crabbers, and it would save a lot of larger crabs.

Mr. Robins said that the Commission looks to this committee to provide advisory guidance on management issues. He said that there are concerns with the analysis on different sizes of crabs and asked if the next phase of research would include a size analysis on larger crabs.

Dr. Lipcius said that the current study on cull rings was not aimed at diamondback terrapins, but they should find the largest crabs in that area, and that part of the study should address that.

Mr. Powers said that in the Poquoson River, 10% of the crab pots are out of the water at mean low water, and they are commercial spots. Dr. Lipcius replied that is one of the areas that needs further study because it is near historical seagrass beds and is a nesting area for diamondback terrapins.

Mr. Robins asked for additional questions from the committee and said that there seemed to be some concerns about size distribution of catch.

Dr. Lipcius referred the group to the other studies and offered to submit a report with all the results from all locations. The pots might get slightly smaller crabs in some places; however, in general, the BRDs are going to limit mortality to terrapins and not affect the catch that much.

Mr. Robins said that the committee could support a significant education program on this project.

Mr. Powers asked about efforts to make BRDs available locally for individuals to put in their pots, if they so choose.

Dr. Lipcius replied that he was leaving it to this group to make recommendations. One idea is to have a voluntary program for BRDs that includes educational elements and see how it works. Historically, voluntary programs have not worked well in fisheries, but VIMS could try and see what happens. He suggested putting them on recreational crab traps before they are purchased.

Mr. Powers said that he had tried to acquire BRDs to try them out, and Dr. Lipcius said that Sea Grant Fisheries may be able to facilitate that.

Mr. Robins said that a significant educational effort would be necessary. The compliance with something like this would likely be a problem, and it would require a lot of outreach to get the word out.

**b. Black sponge crab protection rule, update of science—Rom Lipcius**

Dr. Lipcius updated the committee on the black sponge crab issue. There are several sources of crab mortality in crab traps, such as exposure stress, handling stress, trap time, in-trap agonism, and delayed mortality. He described a study conducted in North Carolina that found that trap-caught crabs had about a 30–40% reduction in number of eggs on a sponge, while there was very little reduction in sponges from dipnetted crabs.

The original study done with Pete Freeman detailed the percentage of crabs alive after certain amounts of time after trapping. Female survival was low in late July and early August. The hottest times of the year were the worst, and mortality leveled off after about 10 days. They found that handling had little effect and that most of the effect was based on being in the trap. In the following studies, crabs were observed over a 10-day period, put into individual compartments, and fed while survival was monitored. In June, survival was about 60%, and, in July, it was about 68%. May and November had very high survival (over 95%). They believed that survivability was driven by water temperatures, and, during the period that females have sponges (June through September), there were lower survival rates of females. They found no difference in female survival based on the color of the sponges, and egg viability remains unknown.

Dr. Lipcius said that the brown and black sponge crab prohibition is not 100% effective during the time egg masses are observed. He said it puts the committee in a difficult position because, if the prohibition were eliminated, it would have to be mitigated. He recommended considering an alternative strategy that might be more effective at preserving brown and black sponges, allowing crabbers to keep those brown and black sponge crabs, but mitigating for those as well. He mentioned he likes sanctuary rules because crabs within the sanctuary cannot be touched.

Mr. Robins asked if Dr. Lipcius had a specific mitigative recommendation, and Dr. Lipcius said that he would like to discuss possibilities with staff. He noted that BRDs might preserve some of the crabs.

Dr. McConaugha said the crabs in the study were still held in containers, so the effect of the containers has not been removed. Dr. Lipcius answered that the crabs were held in individual containers, and the North Carolina study saw very high survivability when held individually.

Dr. McConaugha also mentioned the effect of temperature and spawning stress. He said that females were putting out a lot of lipid material into the eggs, reducing their reserves. He asked about the current regulations.

Mr. O'Reilly said that July 16 and past, you are allowed to keep dark sponge crabs. He also said that when we looked at savings in 2000, we found that it's very difficult to figure out savings unless you have egg information. The clustering of sponge crabs started around July, and, in the tributary areas, according to our best available knowledge, it was partial. So even in June, depending on where you are, the clustering of sponge crabs is not as pronounced as it is in July. Another thing to consider is that the sanctuary now includes May. Last year was the first year with the May 1 to September 15 closure. The sanctuary is more comprehensive than it was when this regulation was put in place in 1996.

Mr. Diggs asked if it was possible to look at expanding the sanctuary, and Mr. Robins said that it had been discussed previously. He said that it was one of the more difficult regulations with significant dissatisfaction. He asked the group if they wanted to consider trade-offs (and asked Dr. Lipcius and staff to begin working on trade-offs). He said that it was hard to estimate savings for sponge crabs and, depending on the area of the bay, there would be different interest with the options that would be pursued.

Dr. McConaugha said that according to the work done by one of his post-doc students, in terms of quality of eggs (lipids and eggs), the first sponge seems to be the most important sponge. The late May and early June spawn may be the most important. Dr. Lipcius said that the North Carolina study found the same thing.

Mr. Graham mentioned that another mitigating factor with black sponge crabs was the 25-foot boundary when the sanctuary was expanded. The reason the boundary was placed was to capture more sponge crabs. He said that it is a very controversial issue, and the crabbers in the lower bay have felt the brunt of that regulation. He said it would be good to start before the season began and suggested moving the date back in June.

Mr. Robins asked for an agency response from Mr. Travelstead. Mr. Travelstead said staff could look at this issue, and that calls come in about this all the time; however, there is a dichotomy in the industry with some crabbers believing that we should not catch any sponge crabs. He said that there are a number of things that we've done to protect pregnant female crabs in the past, and past actions are not sufficient to take something off of the books now. He said that the problem is that there is no real way of calculating savings in order to know how much you need to mitigate. He promised to keep this issue on the agenda, with the idea of coming to a conclusion in time to get something done for this year.

Mr. Robins asked if there was any objections from the committee for staff to propose some options at the next meeting. There being none, the group moved forward to the next item.

**c. Winter Dredge Survey update—Mike Sebo**

Mike Sebo, project manager with Dr. Lipcius on the Winter Dredge Survey, showed a video about the survey. He said that the survey is about one-third complete for the year. At this time, he could not give results, but things do appear to be up a little bit this year. About 320 crabs have been tagged this year, and, during all of last year, they tagged about 460 crabs. He described the boat, captain, and operating procedures and answered questions about the number of stations sampled per day and per year. He highlighted that the main feature of the survey is consistency.

Mr. Sebo said that on Monday, February 15 of this year, they were thinking about having an open boat day, which would be an opportunity for crabbers and fisheries managers to look at setup and ask questions. Mr. Smith mentioned that some people were interested in the setup. Liability prevents the VIMS crew from taking more than a few individuals at a time, so, around the 2nd week in March, they wanted to set up a few ride-along trips.

Mr. Robins thanked Mr. Sebo and expressed appreciation for the outreach efforts. He said that one of the main questions from the group is where the samples are taken and asked Mr. Sebo about location selection. Mr. Sebo said that it is a random stratified design, and Maryland generates the stations by proportioning the bay by area (e.g., the upper bay, lower bay, tangier sound, etc.). Allocation is proportional to area within that region.

Mr. Robins asked when the dredge survey results would be available, and the Mr. Lipcius answered sometime in April. He mentioned that the video and a few pages about the survey are available on the VIMS website.

Mr. Smith discussed comments from watermen observing the dredge survey. He described some of the watermen's concerns with the survey and how the crabs move around. Mr. Sebo said from mid-December, the crabs don't move a whole lot.

Dr. Lipcius said that they had examined this issue, and that with 1,500 stations, the chances that crabs would be missed are relatively slim.

Mr. Smith asked if the data collected in past years (with dredgers working the bottom) make the current study different since there are no dredgers now. Mr. Sebo answered that there are inherent problems with any survey. He acknowledged that there may be some differences now that there isn't a fishery; however, the area is surveyed to the best of our abilities. He mentioned that they were looking forward to everyone coming out and giving suggestions.

Mr. Robins mentioned that the samples were taken for 30 days over a 90-day period so that there is a good temporal spread over the survey as well.

Mr. Sebo and Dr. Lipcius discussed the efficiency work they do, and Mr. Sebo mentioned that they are trying to get an ROV this year as well.

Mr. Diggs asked if you aren't trying to catch as many crabs as possible, how you can be sure you are getting an accurate estimate. Mr. Sebo answered that doing it the same way every year allows us to make comparisons. Mr. Robins clarified that to integrate the survey method into a statistically valid design, you can't have a variable methodology that you plug into the survey. Dr. Lipcius used the US census as an analogy. To get a clear picture of the population, you can't only sample the cities, you have to sample the outer areas as well, so that you don't see a bias.

Mr. Jenkins said that he did not have a problem with the VIMS portion of the survey but was concerned about the upper part of the bay. He said that some of the areas sampled during the last 12 to 15 years have become dead zones. He mentioned that he called and asked about the issue and was told that it didn't make a difference to the crabs. Mr. Sebo clarified that low dissolved oxygen (DO) and anoxic areas are only a concern for about 6 months of the year, and it isn't usually an issue during the winter.

Mr. Lipcius said that it was a good point because the food available (clams) would make a difference. What the survey is designed to do is to capture that decrease as a compensatory increase in other areas. It would be interesting for Maryland to look at those areas to see if they've seen a shift into other areas. He said that he would bring that up for discussion at the next meeting, which should be next month.

Mr. Smith asked if the upper bay had more sampling sites than the lower bay, since each team has 750 sites and the bay is much larger in the south. Dr. Lipcius said that he could provide the actual number of stations and locations on the website.

Mr. Graham asked how many of the 750 stations are in the dredge area where dredging was legal and asked about the mortality ratio of the dredges in the study. Mr. Sebo answered that dead crabs were recorded, and they don't typically see a lot of mortality unless they are in areas where dredges have been or when temperatures drop dramatically.

Mr. Robins asked if there was ever an estimate of mortality in the dredged crabs, and Mr. Sebo said what is typically seen is the dredge pulling off the tops of the crabs. When that is observed, it is recorded.

#### **IV. New Business**

##### **a. Update: ecosystem approaches to crab management—Rom Lipcius**

Dr. Lipcius said the ecosystem-based fishery management plans are still being developed, and they are working on a blue crab summary and gathering of all ecosystem data. There is no report at this time, but one should be available in a month or two. The report will be a summary of all information available on blue crab nationally. Mr. Robins asked for a presentation when the information was available.

#### **b. Cull ring study**

Danielle Dutton described the cull ring project. The purpose was to employ Virginia watermen to study the effect of different cull ring sizes (no cull rings, regulation sizes with BRDs, 2 7/16 in, 2 3/8 in, 2 5/16 in, and 2 3/16 in) in crab pots. The end result should be a cull ring regulation based on scientific data that benefits the crabber and the blue crab, as well as including information on the effect of BRDs on crab catch in deeper waters. She thanked the watermen for their contributions to the study.

Mr. Robins asked when the results of the analysis would be available, and Dr. Lipcius said that they should have preliminary results by the next meeting; however, the problem has been determining which data are reliable.

Mr. Smith said that one of the problems looked at was the issue that larger cull rings were letting out smaller crabs and allowing them to breed smaller crabs, and Ms. Dutton said that she didn't know if a cull ring regulation would help with that problem.

Ms. Dutton and Dr. Lipcius described some inconsistencies among the data taken by commercial watermen and questioned the reliability of some of the data. Mr. Powers mentioned that staff has records of their daily catch on those specific days versus normal days.

Mr. Lipcius said when analyzing the data, having more crabs is going to make it easier to distinguish differences. For this study, the pots should be set where they would see the most crabs. If there are no differences, that might be bad for the crabs. He also mentioned that 75% of the crabbers did very well. He said that the study will be repeated 2 more times, during the spring and summer.

#### **c. Summary of Socioeconomic Survey Questionnaire—Geret DePiper, University of Maryland**

Geret DePiper, from the University of Maryland, provided a brief summary of the survey done with Dr. Doug Lipton. He said their aim was to get a better understanding on what happened with the crab license buy-back programs in Maryland and Virginia. The underlying goal of the survey is to determine who bid and who won and how individuals came up with those bids. They want to understand the incentive for those people economically. If those incentives are understood, then we might be able to understand how future regulations would impact them.



Questions would include length of time as a crabber, other licenses held, how the license was acquired, and vessel and gear information, as well as demographic information and specific buyback program issues. They would also include hypothetical questions about decision making and risking variable income. He mentioned that the survey would be sent out to all eligible buy-back program participants.

**d. Management topics/issues offered by committee members for future discussion**

Mr. Travelstead said that a new agenda item will be added on this and all future agendas that will be an opportunity for committee members to advise staff on issues you want us to investigate. It's also an opportunity for staff to tell you what we're hearing from industry members outside of this room. He gave examples including a caller this week who was very concerned that people are allowed to fish peeler pots on Sunday, Mr. Nixon's request to keep the lower bay sanctuary closed year-round, and the black sponge issue that was just addressed.

Staff would like feedback on these issues, and he said that he is receptive to every single member suggesting things we should look at, but we don't want to spend a lot of time on things that the committee can say up front that we shouldn't do.

Mr. Travelstead said we've never sat down and decided what this fishery should look like. This fishery has changed significantly over the past few years, and there needs to be some long-term discussion on where we need to go with the dredge fishery. The committee needs the opportunity to discuss these questions without the burden that in the next 30 days there will be a regulation about it.

Mr. Robins said that the difficulty of long-term issues with this fishery has been discussed. Ultimately, the best place to talk about what the fishery should look like would be with the stake holders in a workshop format. It should be a much slower, deliberative process as the stock continues to recover and make biological progress. There will be more flexibility with a stock that continues to make biological progress.

Mr. Smith said that he is really glad that over 60 are participating in the ghost pot program; however, he does not want to see a 100-year-old fishery die out. Mr. Smith said that the buy-back program seemed to be a very good program, and he would like to see some of the money for next year go to additional buybacks. He also mentioned the issue of family members transferring licenses after participating in the buyback program.

Mr. Robins mentioned that we are managing toward a mortality target, and if the dredge fishery returns, there will have to be compensation with the pot fishery. Mr. Travelstead said that we would have to wait until the April data come back to look at the dredge fishery again. He asked if there was interest at the committee level on how to engage the industry in identifying values and priorities for the fishery.

Mr. Travelstead discussed the license buy-back program. He said that 13 people who sold their licenses have transferred back in. Two of those have come from family transfers.

Eight are re-entering the peeler fishery, and 5 are re-entering the hard pot fishery. In every case, individuals are re-entering with a smaller license. We did look at everybody who was bought out of the fishery. We don't have good data on family members, but we looked at licenses registered with the same address. There are 16 people who were bought out that had other license holders at the same address.

## **V. Additional Business**

Mr. Powers mentioned doing away with the day off for the 5-pot recreational license or changing the day to the middle of the week instead of on Sunday.

Mr. Lipcius asked about the ghost pot study results, and Mr. Travelstead said that there is a website with the figures about what was retrieved. He mentioned that if there was interest, we could ask Kirk Havens to come in.

Mr. Dise said that he'd like to split the sanctuary up, so that the closure in his area wouldn't start until later in the spring. That way, crabbers in his area would get time to fish. Mr. Robins said that we will ask staff to address that at the next meeting.

## **VI. Adjournment**

The meeting adjourned at 8:04 p.m.