

MARINE FISHERIES ADVISORY COMMISSION

November 8, 2016

DFW Field Headquarters

Westborough, MA

In attendance:

Marine Fisheries Advisory Commission: Raymond Kane, Chairman; Bill Adler, Vice Chairman; Michael Pierdinock, Clerk; William Doyle; Kalil Boghdan; Charles Quinn; Andrew Walsh; and Gus Sanfillipo. (Absent: Lou Williams).

Division of Marine Fisheries: David Pierce, Director; Daniel McKiernan, Deputy Director; Kevin Creighton, CFO; Michael Hickey, Shellfish Program Chief; Dr. Greg Skomal; Story Reed; Nichola Meserve, Jared Silva; Melanie Griffin; and Samantha Andrews.

Department of Fish and Game: George Peterson, Commissioner; Mary Lee King, Deputy Commissioner; and Doug Christel, Special Assistant.

Office of Law Enforcement: Absent

INTRODUCTIONS AND ANNOUNCEMENTS

There were no introductions or announcements. The Chairman, Ray Kane, called the meeting to order.

APPROVAL OF NOVEMBER 8, 2016 BUSINESS MEETING AGENDA

David noted that staff had distributed a revised agenda. Under items for future public hearing, the Director wished to discuss state-waters commercial witch flounder (gray sole) limits. No further comments were made. The revised agenda was not objected to.

REVIEW AND APPROVAL OF THE OCTOBER, 2016 DRAFT BUSINESS MEETING MINUTES

Vice-Chairman Bill Adler asked for DMF to further describe the costs of the gauge in relation to larger gauge increases. Dan explained that every time the minimum size increased a new gauge would be needed and DMF expected the cost of a new gauge would be about \$40-\$50. In conversations with industry, there was a preference for incurring this \$40-\$50 cost biennially to have more gradual minimum size increases. The alternative would be for fewer increases of a more substantial magnitude, which would result in a larger loss of landings.

No further comments were made. Bill Adler made a motion to accept the minutes as written. The motion was seconded by Andrew Walsh. The October 2016 minutes were approved unanimously.

COMMISSIONER'S COMMENTS

Commissioner Peterson stated that he attended the recent Atlantic States Marine Fisheries Commission (ASMFC) meeting in Bar Harbor, ME. He focused on the Menhaden Board's decision to increase the quota by 6.5% for 2017. He commended the ability of the board to find some common ground and help out the fishing industry. He noted that the quota increase would have little impact on Massachusetts because our quota share is small; however, this may change as a result of the ongoing quota reallocation discussions.

DIRECTOR'S COMMENTS

Director Pierce began his comments by discussing his attendance at a recent seal abatement conference, hosted by Crocker Snow Jr. on Nantucket. He noted that the meeting was attended by federal and state officials, fishermen and others. The conference was designed to provide a forum for frank discussion of the growth of the grey seal population in Massachusetts, impacts it was having on ecosystems and predator-prey relationships, damage seals were causing to fishing gear and potential abatement strategies. Then the Director focused on the Marine Mammal Protection Act, which is considered the stumbling block to meaningful seal abatement strategies. David stated that the federal officials in attendance were sympathetic to local concerns, including those of fishermen. However, the Act refers to an "optimum population" and the "carrying capacity of the habitat." These are two poorly defined terms and as a result it is difficult to manage local seal populations. Yet, the federal government was considering non-lethal seal management methods.

Bill Doyle discussed seal predation on fish and the impacts it has on inshore populations of fish. Chairman Kane echoed Bill's concerns and asked the Director if there was any data on fish consumption rates by seals. The Director stated that consumption rates are very hard to document because of they are omnivorous and opportunistic feeders and data sources (racks and scat) are poor. Ray followed up and asked if the MFAC and DMF would be able to address concerns to federal officials. David stated that the door was open and he intends to continue to push for better definitions of optimum population and carrying capacity of the habitat.

Mike Pierdincok stated that he recently attended Council training in Silver Springs, MD. The impact of marine mammals on fish populations was a concern shared nationwide by the attendees at this training session. However, when it was raised to NOAA leadership, he was disappointed that the response was basically that their hands were tied by the MMPA. Mike was encouraged by David's willingness to engage on this issue and was hopeful David could work with his counterparts in other states to continue to push the federal government. However, he expressed his concern that seal advocates would advocate against local management of populations because seal populations had not recovered throughout their historic range.

Commissioner Peterson noted that the seal issue was analogous to some inland wildlife issues. Management strategies were designed to rebuild populations; however, they are ineffective at managing populations once they become rebuilt, resulting in some species becoming pests. He opined that further study was needed to understand consumption patterns and impacts on fishery resources. He also noted that the presence of seals may be affecting tourism industries, as well as the fishing industry.

Kalil Boghdan agreed with George's analogy to inland wildlife issues. He provided an anecdote regarding deer population dynamics and food scarcity issues.

Bill Adler asked if seals were managed under the Endangered Species Act. Dan McKiernan stated that grey seals were not. Bill then asked if there was a potential biological removal rate for seals. Dan stated that there was and noted that some amount of animals were likely being taken by fishing gear. However, the issue was that the MMPA prohibited the intentional killing of these animals. Bill asked if the federal government provided any explanation of what non-lethal management entailed. Director Pierce stated that this was unclear.

In conclusion, David stated that he was planning to meet with the new Northeast Fisheries Science Center Director. He intended to raise the seal issue with them and would press him on research priorities were and what the budgetary needs would be.

The Director then moved on to discuss white sharks. He noted that Dr. Greg Skomal would be presenting on this topic later in the meeting. However, he wanted to highlight a recent Cape Cod Times article that discussed DMF's research and OCEARCH's research and issues OCEARCH has prompted as a result of DMF not issuing them scientific permits to conduct their research in state waters.

The Director then moved on to highlight the recent biotoxin and norovirus shellfish closures affecting Massachusetts. He stated that his Shellfish Program Chief, Mike Hickey, would present on both of these closures later in the meeting.

David stated that he had received a petition from Nantucket to close waters (0-3 miles) around the Nantucket archipelago from May 1 – October 31 and to establish a minimum net mesh size for small mesh. He reviewed this closure in the context of other existing closures and explained the issues raised by the town, which formed the basis of their petition. He stated that his staff and Doug Christel were reviewing the petition. He expected staff would provide him with an analysis in the coming weeks and would provide it to the MFAC for discussion at the December business meeting. Based on this analysis and comments from the MFAC, he would determine his next steps.

Dan McKiernan was asked to provide a brief review of the recent Law Enforcement Sub-Committee. Dan stated that the principal issue discussed was proposed revisions to the state's fine and penalty schedule. DMF has been working on this proposal with DFG legal staff, Law Enforcement and the sub-committee since early 2016. A final proposal is currently under review by DFG legal staff. He anticipated that DMF would be

able to release this to the MFAC in the near future for discussion at the December business meeting. The issue of combining recreational and commercial trips was discussed. DMF is in the process of developing options to explicitly prohibit it or allow it under certain circumstances. He expected that a formal document will be provided to the MFAC in advance of the December meeting. Lastly, the sub-committee discussed the sale of striped bass on a closed fishing day following an open fishing day. He was hopeful that this could be solved without additional regulation by meeting with Law Enforcement and active dealers.

Lastly, Director Pierce stated that this was Bill Adler's last meeting as a member of the MFAC. Bill's term had expired and Governor Baker had appointed Arthur Sawyer to replace him. Arthur is the President of the Massachusetts Lobsterman's Association and a commercial lobsterman and gillnetter out of Gloucester. Director Pierce acknowledged Bill's long standing involvement in fisheries management, having served on the MFAC since 1987 and applauded Bill's tireless work on behalf of the fishing industry. Commissioner Peterson echoed these sentiments. Kalil Boghdan commented that Bill's institutional knowledge and experience would be missed.

Following his comments, Director Pierce took questions and comments from the MFAC. Andrew Walsh stated that he received a package of public comments regarding potential changes to commercial fluke fishery limits. He was curious if the Director intended to take action. David stated that he was reviewing these comments with staff and had not yet made a final decision whether to bring to public hearing a proposal to amend the state's commercial fluke regulations.

Andrew then noted that comments on the Northern Gulf of Maine scallop petition were not similarly distributed and the Nantucket petition was not timely distributed. David stated that he would discuss this with staff.

Kalil Boghdan highlighted a recent news report regarding the Environmental Police. Commissioner Peterson stated that he could not provide details on the report, but Secretary Beaton and Governor Baker were looking into it.

ITEMS FOR FUTURE PUBLIC HEARING

Offshore Lobster Permit Transfers for Dual Permit Holders

Deputy Director McKiernan reviewed DMF's memo. He explained the history of the offshore lobster permit moratorium for use of traps and the exemption for Lobster Management Area 3. With trap allocation reductions in Lobster Management Area 2 (LMA2) designed to consolidate the fleet, DMF believed it was appropriate to provide federal LMA2 fishermen a similar exemption. This would allow businesses who hold a federal LMA2 trap allocation to obtain a state offshore lobster permit from and land their catch legally in Massachusetts.

Additionally, DMF received a request from a Massachusetts fisherman to allow the transfer of offshore lobster permits in conjunction with the transfer of a federal trap

permit and allocation. As DMF regulations did not allow for such a transfer, the request was denied. However, the agency analyzed permit activity and determined a regulatory change was appropriate to allow such transfers in the future.

Commercial State-Waters Witch Flounder Limits

Director Pierce stated DMF's current witch flounder limit is 1,000 pounds. In recent years, Massachusetts' state-waters groundfish fishery had exceeded the state-waters set-aside for all New England states for this species. With witch flounder limits being decreased on the federal side, there had been some discussion at the NEFMC to implement accountability measures if state-waters set-asides are exceeded.

David had preliminary conversations with members of the state-waters gillnet fleet, including MFAC member Lou Williams. There was support for DMF to reduce the trip limits to prevent the federal government from implementing accountability measures. Accordingly, DMF was proposing to reduce witch flounder trip limits to the 300 pound range.

Andrew Walsh asked about existing landings of witch flounder in comparison to the state-waters set aside and how such a reduction would affect catch. Melanie Griffin explained that this proposal was developed coming out of the recent NEFMC meeting. She was working with DMF's Statistics Program to parse out this information. She noted that the state-waters fleet was consistently exceeding the state-waters set-aside. However, average landings seemed to be well below the existing 1,000 pound limit. The trip limit reduction was being proposed to constrain fishery and discourage higher levels of participation. It would also be seen by the federal fishery and federal managers as an act of good faith and demonstrate that the state is actively engaged in working with its state-waters fishery.

PRESENTATIONS

Norovirus Closure in Wellfleet

Mike Hickey, DMF's Shellfish Program Chief, provided a presentation on the norovirus outbreak in Wellfleet and subsequent closure to shellfish fishing in Wellfleet.

In early October, shellfish harvested from Wellfleet were served at numerous events where individuals became ill. Illness investigations determined the illnesses were caused norovirus and the source of the norovirus was the shellfish. Accordingly, the state was required to close Wellfleet to shellfish fishing to safeguard public health. DMF was able to recall shellfish at primary buyer locations and aquaculturists were allowed to segregate and re-submerge this shellfish on their grants. This was done based on a mechanism in the state's *Vibrio* management regulations. This saved this shellfish from being embargoed and destroyed with income lost.

Mike explained norovirus symptoms and transmission. The source of the norovirus was uncertain, but it was likely a transient event. It was, however, not likely a result of an

illegal pumpout by a cruise ship, as had been speculated, because the presence of norovirus would have been seen elsewhere in Cape Cod Bay.

DMF was currently working to reopen Wellfleet. However, FDA raised concerns about the length of the closure, preferring a 45-60-day closure rather than a 30-day closure. Additionally, they did not support DMF's action to re-submerge the shellfish, citing exposure, time-to-temperature and pumping rate issues. DMF did not agree with FDA's concerns. At a November 3 meeting of the ISSC, the Executive Board supported DMF's decision. DMF was scheduled to hold a follow-up call with FDA to discuss reopening options. Two options were being considered: (1) opening the whole area; and (2) opening the area but requiring re-submerged shellfish stay on grant sites for an additional period; DMF favored the first option. Following this call, DMF was planning to meet with Wellfleet officials and fishermen to discuss closure status.

Commissioner Peterson asked if the delay in re-opening the area was a result of testing. Mike stated that it was not. He noted that testing for norovirus was inadequate because the presence of dead virus will still produce a positive result. So closure and reopening protocol was set based on prior experimentation. The delay in re-opening was ultimately a matter of convincing FDA officials that the DMF's actions were consistent with the procedure and their concerns were being met. Mike opined that there was turnover at FDA and part of the issue was a matter of educating people in new positions.

Bill Adler asked how long shellfish take to purge themselves of norovirus. Mike stated that prior FDA studies indicate that they will purge themselves within 21 days. So, a typical norovirus closure is 3-weeks. However, due to FDA concerns regarding re-submergence, DMF took a more conservative approach and was advocating to close the area for 30-days, consistent with a sewage treatment plant overflow closure. However, FDA favored a 45-60-day approach, which DMF did not support. Bill asked if contamination came from a human source. Mike noted that norovirus only comes from human sources.¹

Amnesic Shellfish Poisoning (ASP) Shellfish Closures

Mike Hickey provided a presentation on the state's ASP shellfish closures. In October 2016, DMF closed Mt. Hope Bay, Buzzards Bay, Vineyard Sound and Nantucket Sound to shellfish fishing, excepting scallop adductor muscles and carnivorous snails. These closures were put in place was due to the presence of a phytoplankton bloom of the diatom pseudo-nitzcschia. Pseudo-nitzcschia are a naturally occurring phytoplankton and some species produce Domoic Acid (DA). DA accumulates in filter feeders and cause ASP when those shellfish are consumed by humans. Symptoms of ASP include gastro-intestinal illness in lower doses and in higher doses can cause memory loss and permanent neurological damage.

Mike reviewed the timeline from the presence of the pseudo-nitzchia bloom in Rhode Island Sound to the shellfish closures across Rhode Island and southern

¹ Note: When areas were re-opened on November 14, 2016 no illnesses were reported.

Massachusetts. He highlighted that it is difficult to differentiate between toxic and non-toxic species without electron microscopy or genetic analysis and even toxic species may not produce DA. So for these reasons, closures in RI and MA were implemented preemptively based on the abundance of phytoplankton. The abundances observed were uncommonly high and unprecedented in the northeast. Tests on shellfish meats determined that DA was present and as the bloom dispersed it began to more actively produce DA. MA maintained a conservative approach and kept the closures in place for 23 days (until October 31). This prevented shellfish recalls and maintained consumer confidence in MA shellfish.

Bill Doyle asked if the MA closures prevented illness. Mike opined that they did. Ray Kane asked if DMF actively monitored for pseudo-nitzchia. Mike stated that DMF does not actively monitor for pseudo-nitzchia. DMF's toxin monitoring program focuses on red tide and phytoplankton monitoring does occur at certain stations. However, DMF will have to implement an ASP monitoring program. Improving testing to reopen closed areas is currently a top priority, as testing is very expensive, requires training and throughput is limited.

Mike Pierdinock asked if it is common for these blooms to occur inshore. Mike Hickey stated that it is not. These blooms typically occur offshore. In fact the bloom that impacted MA and RI, as well as the bloom that closed areas in ME, began offshore and moved inshore.

Kalil Boghdan asked if the toxin was impacted by heat. Mike stated that it was not and cooking or freezing did not impact its presence in shellfish meats.

White Shark Research

Dr. Greg Skomal provided a presentation on DMF's white shark research. The presentation focused on tagging and identification studies and what they tell us about movement ecology, fine and broad scale movements and local population size. Greg noted that DMF's research was unique because it does not rely on chumming for sharks but instead utilizes a spotter plane to find sharks in shallow waters near the surface.

Research demonstrates white sharks arrive in our state-waters in June and their presence increases throughout the summer followed by a decline in November. While sharks were initially thought to be principally located along the Outer Cape, acoustic detections show that there is a greater presence of white sharks in Cape Cod Bay than initially thought. Additionally, there are temporal fluctuations in the presence of white sharks in certain areas (e.g., movements from Chatham to Orleans or Truro). DMF and SMAST are currently working to determine what biotic or abiotic factors may be driving these fluctuations, which could allow scientists and managers to predict when sharks can be expected in certain discrete areas. Research has also show that certain individual sharks move more than others, which may be a result of individual hunting ability.

On a broader scale, research shows that the sharks migrate along the Atlantic coast and sometimes out past the edge of the continental shelf. Those sharks that tend to be in more near coastal areas remain closer to the surface. However, those sharks that move out to the continental shelf make substantial diel movements throughout the water column, diving as deep as 1,000 meters.

As for the population study, DMF is working to identify individual white sharks based on their unique color patterns. This identification work is being done primarily by John Chisholm, who is reviewing go-pro footage collected by the project and then cataloguing sharks based on their color patterns. So far, researchers have identified more than 207 sharks in Massachusetts waters and in 2016 DMF has identified the presence of as many as 180 sharks. While there is not a population estimate yet, resighting data will help extrapolate population size.

Chairman Kane asked if DMF encountered acoustic receiver loss. Greg stated that as many as twelve were lost in one year. This loss was likely due to tampering and occurred at the beginning of the study when there were concerns about the potential impacts of the research. DMF has moved onto using more substantial mooring systems, which makes tampering more difficult, and there seems to be growing support for the research as the benefits are better understood.

Ray asked how the research equipment was funded. Greg stated that it was a combination of private and public funding. DMF was also working with municipalities to have them assist with acoustic receiver deployment and maintenance, which reduces costs over the long term.

Bill asked Greg to further describe how acoustic tags are set on the sharks. Greg stated that the spotter plane will identify sharks in the shallow waters, likely hunting for seals. The vessel will then follow the sharks and wait for them to get within 2-4' of the surface. At that point, they are tagged with a tagging pole right behind the dorsal fin. Greg added that the models being used are sensitive, so it is important to attach the tag properly and not alter shark behavior.

Ray noted that the sharks that are tagged by OCEARCH seem to overwinter off Jacksonville, FL. He was curious as to why that was. Greg stated that white sharks do not feed exclusively on seals and their diet seems to broaden as they move south. The area off Jacksonville is critical habitat for the northern right whale, so the sharks may be going there to feed on adult carcasses and live calves. Additionally, there are other abundant food sources such as dolphins, porpoises and fish.

Charles Quinn asked about seal consumption rates by white sharks in our waters. Greg stated that based on observed attacks, it appears seal predation does not occur often. However, he cautioned that we may not be observing the totality of feeding events. He also added that the animals that stay in one area may be more adept at hunting seals, whereas the more mobile animals may be more omnivorous or opportunistic predators.

Commissioner Peterson asked if there was a relation between those sharks that move offshore and a biological factor such as age, size or sex. Greg stated that older, larger female sharks tend to be the individuals that migrate to the continental shelf. He was uncertain as to the reason for this behavior but postulated that these females may be pregnant and move offshore to avoid males, exploit deep sea food sources and potentially expedite development of their pups.

George followed up George and asked how cold the deep sea water was. Greg noted it was about 30 to 40°F. He added that white sharks can elevate their body temperatures, so this allows them to do these deep diving movements. However, it is likely that their ability to keep their body temperatures elevated is limited. This then limits them from remaining off Cape Cod throughout the winter to feed on seals.

DISCUSSION ITEMS

Northern Gulf of Maine Sea Scallop Fishery

Director Pierce stated that he received a petition earlier this fall to request an exemption from NMFS that would allow LAGC-IFQ and LAGC-NGOM sea scallop permit holders to continue to fish in the state waters portion of the Northern Gulf of Maine area (north of Boston) after the federal catch limit is taken for this area. David indicated that after an analysis of the petition and a public comment period, he would be moving it forward and submitting it to NMFS. He anticipated NMFS would approve the exemption request, as MA actively regulates its state-waters sea scallop fishery.

Melanie Griffin stated that DMF did not receive written comment in support or in objection to the proposed exemption. She spoke with a number of fishermen, however, and they were supportive of the exemption. Their major concern is having it implemented as soon as possible. Based on conversations with NMFS officials, she did not expect the exemption could be implemented for December, but was hopeful it could be in place for the end of the 2016 fishing year.

Review of ASMFC Meeting

The Director's comments were focused on menhaden. He noted that the total allowable catch was increased by about 6% for 2017. The Menhaden Board was also working on an Amendment that would address state-by-state allocations. Preliminary discussions on 2017 recreational black sea bass and fluke limits will be discussed at a December ASMFC Fluke, Summer Flounder and Black Sea Bass Board meeting.

Nichola Meserve stated that DMF would be holding public hearings on behalf of ASMFC in December. The hearings would cover the proposed menhaden amendment and a proposed jonah crab addendum that addresses landing claws

OTHER BUSINESS AND COMMISSIONERS COMMENTS

Bill Doyle stated that he remained concerned about the enforcement of “No Discharge Areas” and was interested in whether it was possible to tie compliance with NDAs with appropriations to communities (e.g., grants). Bill stated that he was hoping to still meet with DMF staff to discuss how to improve enforcement and compliance. Deputy Commissioner Mary Lee King stated this issue goes beyond the authority of DMF and DFG and likely requires cooperation among various stakeholders. Bill was also interested in having aquaculture regulations standardized across municipalities.

Chairman Kane took this opportunity to thank Bill Adler for his service. He stated that Bill encouraged Ray to attend all the meetings and the hearings in order to understand the issues and their impacts. This was advice Ray took to heart and advice that he extended to the new MFAC members.

Jared Silva stated that he would be scheduling meetings for the first part of 2017 in the coming weeks. A meeting would not be held in January, so the first 2017 meeting will likely be in February. He asked MFAC members to let him know of potential conflicts as soon as possible so he could schedule around them to the greatest extent practicable. Jared also expected that DMF would be holding a series of public hearings in mid-to-late January on the various issues discussed with the MFAC at recent meetings.

No further comments were made. **The meeting was adjourned.**

Meeting Documents

- November 8, 2016 MFAC Business Meeting Agenda
- October 6, 2016 MFAC Draft Business Meeting Minutes
- Offshore Lobster Transfer Proposal
- Draft Public Hearing Notice for 2017 Omnibus Hearing
- ASMFC Meeting Summary
- Scoping Comments Regarding Commercial Fluke Fishery
- Law Enforcement Sub-Committee October 2016 Meeting Summary
- Nantucket Petition Regarding Mobile Gear Fishing
- Director’s Presentation
- White Shark Research Presentation
- Noro-Virus Illness Presentation
- Amnesiac Shellfish Poisoning Presentation

Next Meetings

December 15, 2016
DFW Field Headquarters
1 Rabbit Hill Road
Westborough, MA