



New England Fishery Management Council

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MEETING SUMMARY

Habitat Committee

Holiday Inn, Mansfield, MA

August 18, 2016

The Habitat Committee met on August 18, 2016 in Mansfield, MA to discuss ongoing habitat-related management actions, primarily the Deep-Sea Coral Amendment and the framework adjustment to evaluate clam dredge access to two OHA2 habitat management areas. The Committee also received updates on various topics including OHA2, marine national monument proposals, offshore wind, the Northeast Ocean Plan, the May 2016 national EFH Summit, and EFH consultations.

MEETING ATTENDANCE: Dr. John Quinn (Chair), Doug Grout (Vice Chair), Terry Alexander, Elizabeth Etrie, Mark Gibson, Dr. Matthew McKenzie, Eric Reid, Peter Hughes (MAFMC designee), and David Borden; and Michelle Bachman and Rachel Feeney (NEFMC staff). Mr. Borden participated as a Committee member during the deep-sea coral agenda item, and otherwise spoke as an audience member. Approximately 20 members of the public attended.

KEY OUTCOMES:

- Committee agreed that it is important to stay up to date on both offshore wind issues and EFH consultations.
- Committee recommended some updates to the range of coral zone alternatives under consideration in the deep-sea coral amendment.
- Committee feedback will be used to refine the PDT’s analyses for both the clam and coral amendments.

Dr. Quinn gave a brief introduction. No changes to the agenda were suggested. He outlined five goals:

1. Provide guidance on how to develop alternatives for the clam framework
2. Consider updating the Jordan Basis zone for analysis
3. Consider coral amendment application to lobster gear
4. Provide PDT guidance on their work for the next several months
5. Discuss timeframe for review of coral amendment, and coral-related research priorities¹

¹ This topic was not discussed during the meeting.

AGENDA ITEM #1: UPDATES

Staff indicated that OHA2 should be resubmitted to GARFO at end of August/early September. There won't be additional work on either the coral or clam actions until after submission. Implementation of OHA2 is expected next spring, and this will trigger the one-year exemption for clam dredges.

Staff provided a brief summary of the various marine national monument proposals. Monuments are designated under the Antiquities Act, and the Council on Environmental Quality (CEQ) vets proposals and provides advice to the president. They are currently vetting three New England canyon/seamount proposals, and all of these overlap coral management zones that we are considering in our amendment. Two proposals overlap just the eastern canyons and seamounts, and a third covers the entire New England region but has a deeper minimum depth. Given these overlaps, the timing of an announcement on the monument will factor into planning for the coral amendment. For example, when completing their coral amendment, MAFMC held a workshop to get feedback on coral zones that balanced industry concerns with conservation objectives. Ideally such a workshop should be completed here too, but it may be more efficient to delay planning a workshop until after the designation decision. Staff noted that CEQ convened a meeting with fishing industry representatives last week, and the Council chairman and Executive Director attended.

Mr. Reid, who also attended the CEQ meeting, provided some additional details on the 1.5 hour discussion. CEQ indicated that the designation will likely be surface to seafloor, suggesting that pelagic gears would likely be restricted in the monument. Industry representatives in attendance provided accurate and confidential info about fishing in and around the canyons. They discussed the Council process, as well as the possible unintended consequences of an ill-informed action. The timeline remains vague; clearly a decision will be made prior to the President leaving office in January 2017. Some attendees felt action was possible in the coming weeks, while others wondered if an announcement would be postponed until after the election in November.

Mr. Hughes asked if the designation of marine monument could outweigh our work on the coral amendment. Ms. Bachman indicated that this was possible and even likely, and would depend on the monument boundaries and fishing restrictions. It seems likely that the monument would be more comprehensive, such that council measures would not be needed within a monument designation. Mr. Reid agreed that a shallower monument designation would 'null and void' the Council process under Magnuson Stevens.

Mr. Alexander asked if CEQ had provided rationale for excluding pelagic longline gear in a potential monument. Mr. Reid indicated that while the comment about surface to ocean floor was clearly stated, that CEQ was not disclosing more information than necessary. There were no audience comments. Staff will continue to track this issue leading up to an announcement.

Staff briefly described the national EFH summit which was held in Annapolis, MD this May. John Quinn, Michelle Bachman, Chris Kellogg, and Kathryn Ford attended on behalf of the Council, and other habitat PDT members attended for NMFS. Ms. Bachman and Dr. Quinn both agreed it was a very useful meeting. It seems that we are ahead of some other regions in terms of using relative abundance data in our EFH designations, but there are exciting model-based

possibilities for streamlining and improving designations in the future. Ms. Bachman will be participating in the MAFMC 5-year EFH review process, and we can hopefully use some new approaches there, and then bring these tools to New England. In general, it seems like habitat initiatives are accomplishing a lot with limited resources. The summit was also a great opportunity to connect with other Councils taking on similar issues (e.g. North Pacific may be able to use elements of SASI model in their coral work). For more information see <http://www.fisheriesforum.org/our-work/special-projects/efh-summit>.

Staff noted that there is a CCC work group of council and NMFS habitat staff that helped organize the summit, and meets regularly by phone. The purpose of the group is to share information and expertise on a wide range of habitat issues relevant to the Councils. Once the CCC chairmanship shifts to NEFMC next year, Ms. Bachman will be chairing the work group.

Staff reminded the Committee that the Council sent detailed comments on the Northeast Regional Ocean Plan. One of the Council's concerns was the lack of clear purpose for the important ecological areas being developed by a work group of the Regional Planning Body. This work group met in July and Ms. Bachman and the Council's representative on the RPB, Mark Alexander, both attended. The work group is still in the early stages of evaluating which data are relevant to identifying important areas, and seem to recognize the concerns from the Council and other stakeholders that the purpose of the effort is unclear. This group will likely meet again later this fall, and staff will track the issue. Staff clarified that the ocean planning efforts are in response to an Executive Order, but the actions contemplated in the Ocean Plan can be undertaken under existing agency authorities.

Next, the Committee had a fairly lengthy discussion of current events related to offshore wind. Ms. Bachman provided a brief update from BOEM via Brian Hooker. They are revising the NY Wind Energy Area environmental assessment (not sure when the final version will be available) and reviewing comments on the lease sale notice. The Council submitted comments on the sale notice and EA. Dr. Quinn noted that he testified on behalf of the Council at a BOEM hearing on the NY WEA this June.

The Block Island Wind project is moving forward and will be generating power soon. National Grid is in the process of placing concrete mats in locations where their target cable burial depths were not achieved. Both BayState Wind and Offshore MW are doing site assessment surveys this summer. Dr. Quinn observed that the comprehensive energy bill just passed by the Massachusetts legislature would likely accelerate offshore wind development. He noted that each wind developer is supposed to hire a liaison to coordinate with the fishing industry.

Mr. Alexander asked about restrictions associated with the Block Island cable. Audience member Megan Lapp, Seafreeze Ltd., who has been involved with that project on the industry side, indicated that there were exclusion zones during construction of the turbines themselves. Industry members were compensated financially for the initial exclusion, but not for the extension on the construction timeline. There will not be compensation for ongoing U.S. Coast Guard exclusion zones, and there was no compensation provided for the cable laying, which was done by National Grid, not the wind energy project developer. This cable goes through a

productive fish trap area. Ms. Lapp suggested that the Council be proactive about the compensation issue, because there does not seem to be a consistent or clear approach.

Mr. Hughes noted that he had also participated in hearings related to the NY WEA as well. To Ms. Lapp's comments, he felt that a clear policy on fishing industry mitigation should exist, but that he wasn't sure where that process should begin.

Audience member Beth Casoni (Massachusetts Lobstermen's Association) noted that she had recently been hired as the liaison for Deepwater Wind's project Deepwater ONE. They were advocating for additional liaisons.

Audience member Ron Smolowitz (Fisheries Survival Fund) asked how the Council was planning to become involved with the BOEM process. Ms. Bachman acknowledged that this unclear at present, given limited staff resources. Mr. Smolowitz stated that he had been involved in these projects for a long time, and that he is seeing a buy-off of the fishing industry. It seems that national policy is that the production of energy is more important than the production of protein, and no one is doing baseline studies. When he asked what they are doing about sea turtles, given that some of the wind areas are heavily used by species like leatherbacks, Kemp's Ridley, and loggerheads, the response was that there were presence/absence aerial surveys. He argued that there could be impacts on behavior, but no one is funding these sorts of studies.

Mr. Borden suggested that the three regional fishery management organizations (NEFMC, MAFMC, and ASMFC) should coordinate on responses to these issues. The possibility of a joint Committee or workgroup was raised.

Ms. Lapp emphasized that there are no set processes in offshore wind – decision making is often top down from the director of BOEM and that's the final word. She recommended that the Council take the position that fishing areas should be protected and set aside from wind energy development areas. She has told the director of BOEM that despite their assertions that trawling will be permitted between turbines, trawl fishing within a windfarm will be next to impossible.

Next the Committee heard from Alison Verkade, who works primarily on EFH consultations at GARFO Habitat Conservation Division. Ms. Bachman noted that earlier this year, Council staff reached out to HCD leadership seeking a greater level of information about and involvement with the consultation process. The message from HCD was that Council comments and involvement were important, and have weight with the agencies involved in permitting (often the Army Corps of Engineers).

Ms. Verkade noted that they have recently assigned a specific staff member to focus on offshore wind-related consultations. They will be reviewing the MA/RI WEA site assessment plan soon, and she encourage the Council to coordinate on this if possible. They are concerns with science gaps in terms of understanding the effects of these projects. Another type of project that has become an area of focus is sand mining. Projects of various sizes are under consideration, with a small project offshore of Suffolk County, NY, and a much larger 3200 acre proposal off Little Egg, NJ. She wasn't certain, but the sand mining project off Little Egg may include areas in federal waters.

Ms. Etrie commented that Habitat Committee engagement on these issues has been ad hoc, and asked how we can keep these issues at the forefront. Mr. Alexander and others agreed that these issues were important. Ms. Bachman responded that the plan is at minimum to have updates on consultations at each Committee meeting. Ideally we would be more involved, following projects more closely and commenting, but that takes staff time. The MAFMC developed a collection of policy statements on different project types that Jessica Coakley uses when commenting on non-fishing projects, and we could consider a similar approach over the longer term, perhaps with the help of a contractor. One idea was to have regular updates on consultations at full Council meetings. Dr. Quinn indicated that he would raise the issue with the Executive Committee.

AGENDA ITEM #2: CLAM DREDGE FRAMEWORK

Next the Committee discussed the clam dredge framework adjustment. Ms. Bachman gave presentations on two data sets the PDT will be using to develop alternatives.

PDT image analysis project

First she discussed an image analysis project the PDT has been working on (see document 2a and presentation 2b). The purpose is to extract more data from School for Marine Science and Technology video survey digital imagery, specifically data on percent cover of gravels, and presence and type of epifauna (i.e. attached organisms), particularly longer lived species. Re-analyzing imagery will provide this percent cover data, and also will ensure that all images in an area are reviewed by a single analyst for consistency. Different approaches were considered for the percent cover analysis, and ultimately a single visual inspection of each image was selected over a grid-based approach, but a more detailed grid-based analysis can be used for calibration.

There are over 500 stations in the Great South Channel HMA with digital imagery, and over 90 in the Georges Shoal HMA. Each station has four images and data at the image level would be averaged at the station level. There are coordinates available for each image. There have not been before/after studies of clam dredge impacts, either at a management area scale, or looking at the effects of individual tows.

Audience comments

Mr. Smolowitz: Don't understand the purpose of analysis. Tremendous seasonal variations in epifauna coverage and sediments are also dynamic. Given all the variables, what would this show? Are their HabCam data available? Does natural disturbance exceed gear impacts?

Ms. Bachman noted that she would follow up on availability of HabCam data. We can look at year to year patterns in the data, but ultimately we are looking for evidence of habitat complexity, particularly evidence of the largest sediments and longest lived epifauna that are indicators of longer-term stability. Obviously both areas have a high degree of natural disturbance, relative to other locations in the region.

Tom Alspach (SeaWatch International, Ltd): Largest processor of surfclams; underwrote the PSP protocol to reestablish fishing on Georges Bank, and are working on a new \$9m surfclam vessel

to fish there. Some troubling assumptions in document 2a. Implication in the PDT's interpretation of the Council's problem statement is that the fishery is not achieving OY, so closing areas doesn't matter. OY in the FMP is a range, and the fishery is within that range.² Also the PDT makes a statement that yield can be generated elsewhere if areas close, which is not true. Larger surfclams on Nantucket Shoals are used in particular to supply the clam tongue market, and smaller vessels cannot operate economically on Georges Bank [given PSP testing costs]. Finally, in terms of the statement that just because the fishery has operated in an area in the past, it doesn't mean that the areas will get an exemption going forward, the converse is also true, i.e. exemptions may be appropriate in areas that are not currently fished.

When this [framework] process began, Chairman Stockwell asked us to propose areas. Powell's work is part of that, i.e. to what extent can the industry augment the PDT's work with our own information? We can see plainly the area of dredge operation. Don't want the analysis constrained to just this [image analysis]. Want [Powell's] information considered. The image analysis document only addresses half of what the Committee is charged to do, i.e. balance OY with adverse impacts. Nothing in the image analysis document that talks about impacts to fishermen. No economic impact analysis was done for the habitat amendment. I hope we can broaden the work.

Ms. Bachman responded that the purpose of the image analysis document was not to cover every source of information that will be used by the PDT to inform alternatives development, and that certainly other sources of data, such as Dr. Powell's work, will be used. Further, the OHA2 FEIS has extensive sections on economic impacts by fleet, including logbook-based estimates of revenue displacement. At the next Committee meeting, the idea is to have both suggested alternatives and a preliminary look at impacts (habitat, fish resource, and economic).

Dave Wallace (representing portion of the clam fishery): Tom Alspach referenced a letter by Chairman Stockwell to me about presentations and proposals. We have made numerous proposals over the years. Unfortunately, they have gotten us nowhere, and I am frustrated. The two proposals [adopted by OHA2] to close areas were industry proposals, and were based on preserving scallop and groundfish access. Michelle said the implementation of OHA2 is spring 2017, and this is also when the analysis of those two areas will be complete. Will these be peer reviewed? How can this be expedited? Council won't have a framework before the time elapses. The Committee/Council should consider a framework to extend the initial exemption period from one year to two. It would be unfortunate to be frozen out for no fault of our own. We've spent a lot in science to facilitate this process.

Ms. Bachman responded that the data and initial alternatives will almost certainly be ready before OHA2 is implemented, and we should have until at least next September before the Council needs to take final action. Overall, the framework is relatively streamlined with few measures and the regulations will be fairly simple. It would be possible but not necessary to have a peer review of the data used to develop alternatives.

² Note that Amendment 17 to the FMP removed the OY ranges to make the clam fishery consistent with others managed by the Council. Under this system, the Council may not exceed ABC as recommended by the SSC. The advisory panel has a role in recommending OY to the Council during the specifications process.

Joe Myers (Bumble Bee): I work out of Cape May, NJ, and we are involved with quahogs, not surfclams. However, we are concerned about ripple effects and impacts on possible MSC assessment for the fishery. Important to note that since clams are an ingredient, and not a center of the plate item, there are large economic multipliers in terms of the fishery's total impact on GDP. There is a forthcoming study on these multipliers.

Sally McGee (The Nature Conservancy): TNC worked with SMAST on data mining ten years of video survey data. The project also includes oceanographic features, such as bottom stress, which would be of interest here. Results of this work are 100% available to Council, mostly through northeast Ocean Data Portal, but additional data as well.

Louis Legasse (surfclam fishermen): In terms of economic impacts, we fish primarily on Nantucket Shoals, and our niche is the large tongue market. 85' boat, medium sized. It's not viable to go through the PSP protocol to fish on Georges Bank. If Nantucket Shoals is shut down, it shuts us down. Impacts the small boat fleet. I've been fishing NS for 35 years. One-boat owner. Now my son is the captain. We are a family operation.

Chris Shriver (Galilean Seafood, Bristol, RI): We are a large tongue plant. 130 people working there. Haulers and shippers. Our employees have been working there all their lives.

Scott Nolan (surfclam fishermen): Similar to Louis, have fished Nantucket Shoal since 1981. My son is a captain. One boat supported my family. We have no place to go. We live on Cape Cod. We don't want to move to NJ. 80 foot boat. Can't afford the testing cost. SeaWatch has been testing, and there is no evidence of PSP. Why is continued testing necessary?

SCeMFiS clam survey project

Next, Ms. Bachman summarized a project by the Science Center for Marine Fisheries mining habitat-related data in the Northeast Fisheries Science Center clam survey. On July 28, the PDT received a presentation from Dr. Eric Powell and reviewed a draft report on the project. They will send detailed comments to Dr. Powell and staff will distribute a final report to the Committee when available. In addition, Dr. Powell will share their GIS database with the PDT.

There are two main elements to the project. First, they gathered digital and paper logs for the entire survey time series. The next step was to evaluate and standardize habitat-related bycatch data across the time series, assigning values of absent, present, or predominant to each data element for each tow. Data examined for the project include clam and other shells, cobble/rock/boulder, tow characteristics indicating unfishable bottom, and attached epifauna. These data can be used to assess whether the area fished by the dredge would be considered complex habitat. The second part of the project was to assemble PC WinPlot data from commercial vessels to indicate the distribution of commercial fishing in the two habitat management areas. Both data sets should be useful to the PDT during development of alternatives. A third aspect of the project was to compare survey and commercial tow locations, and assess what proportion of commercial tows occurred in complex habitat as defined by the survey tows.

Committee and audience discussion

Dr. McKenzie asked about EFH consultations and data on bycatch in the fishery. Ms. Bachman noted that yes, there is an EFH consultation done on any federal action, including FMP updates under Magnuson Stevens. In terms of bycatch data, there is limited observer data for the fishery, particularly on Georges Bank, although there has been a recent increase in the number of trips observed. Bycatch data will be recorded in the survey data, although it was noted that the survey and commercial fishery use somewhat different gear and tow at different speeds, such that the survey may not be a good indication of bycatch data in the fishery. Mr. Hughes noted that commercial vessels tow at around 2 knots, and Mr. Alexander suggested that at this speed fish were likely able to outswim the dredge. Ms. Bachman observed that more trips would be observed if fish bycatch was a major concern. Dr. McKenzie wondered how we can know that bycatch rates are low with limited data.

Jessica Coakley (MAFMC habitat staff, clam FMP coordinator) indicated that NEFSC examined observer data from 2004-2006 to assess bycatch in the fishery. Following the meeting, she forwarded the full analysis to staff, as well as a summary they use in their clam FMP documents, which is reproduced below:

“Northeast Fisheries Observer Program (NEFOP) directed trips for surfclams (sample size (N) = 16) and ocean quahogs (N = 30) with discards from 2004-2006, were used to characterize non-target and bycatch species for these fisheries (Chute, T., Pers. Comm., July 3, 2013). For ocean quahogs and surfclams the bulk of the bycatch from the clam dredges is non-living (debris/shell), with a mean of 8 percent live bycatch (range 0-19 percent) for ocean quahogs trips and 3 percent live bycatch (range 0-7 percent) for surfclam trips. For ocean quahog trips, the top live bycatch, ordered by declining contribution, are sea scallop, little skate, skate (unclassified), monkfish, clapper clam, clapper (unclassified), snail (unclassified), spiny dogfish, winter skate, rock crab, Jonah crab, sea star (unclassified), whelk (unclassified), mollusk (unclassified), summer flounder, ocean pout, crab (unclassified), and longfin sculpin. For surfclam trips, the top live bycatch items include sea scallop, ocean quahog, little skate, clapper clam, stargazer (unclassified), monkfish, spiny dogfish, sea star (unclassified), moon snail (unclassified), clapper (unclassified), sponge (unclassified), horseshoe crab, sand dollar, snail (unclassified), winter skate, rock crab, skate (unclassified), and eggs (unclassified). The surfclam and ocean quahog fisheries are targeted fisheries, and live bycatch constitutes a small percent of total bycatch.”

The Committee discussed next steps and timing. GIS data from the survey project should be available in a few weeks, and the PDT's image analysis work should be complete in 6-8 weeks.

Staff and industry members in the audience confirmed that the clam fishery operates year-round, considering limitations due to winter weather on Georges Bank. Audience member Dave Wallace commented on a 2005 bycatch analysis he worked on with former MAFMC staffer Tom Hoff, which suggested that less than 5% of 1600 tows in the clam survey had finfish bycatch.

Audience member Tom Slaughter, Atlantic Cape Fisheries, suggested that just because an area looks like habitat in imagery, doesn't mean that the fish live there. Sand sweeps through and changes depth from 80' to 40'.

Audience member Ron Smolowitz suggested that you can't use survey as indicator of bycatch, because the dredge is towed slower than a commercial vessel would fish. He asked why we are concerned about bycatch in general. Ms. Bachman responded that bycatch rates in the fishery have not been a focus of the PDT, but it seems worth looking at the data available to confirm that they are low. What we really want to know is how the habitat is affected, and whether fish are using the habitat. Dr. McKenzie responded that bycatch was of concern to some during development of OHA2. Mr. Smolowitz agreed that we should be concerned about how juvenile fish use the habitat, but we don't have the data on juvenile fish, and no one seems to be funding proposals to look for juvenile fish.

Ms. Etrie noted that the PDT's assumptions in document 2a regarding the Council's problem statement were in her view consistent with the Committee and Council's intent.

In terms of next steps, Dr. Quinn indicated that the PDT will work on developing alternatives at an appropriate pace given other work, targeting the end of 2016 for Committee review. Ms. Bachman suggested that the advisors could be consulted as well.

AGENDA ITEM #3: DEEP-SEA CORAL AMENDMENT

First, Ms. Bachman showed a map of the coral zone in central Jordan Basin, including the existing zone and a suggested PDT update (see Document 2b). Information made available around the time of the March Committee meeting but not discussed by the Committee at that time argues for a larger zone to include two 2014 ROV dive sites.

Next, Ms. Bachman described the results of PDT work to date to evaluate fishing activity in the coral zones (Document 2c). The figures in this document are primarily based on VTR data, although the PDT's understanding of lobster and Jonah crab fishing in the canyons is supported by a survey conducted by ASMFC (Document 2d), and by harvester reports submitted by Maine lobstermen fishing in Area 1. Work to date evaluates the magnitude of revenue and effort by gear and species occurring in and around each of the draft coral zones. A handful of fisheries and gears represent most of the activity, and the results vary between the canyon zones, inshore Gulf of Maine zones, and offshore Gulf of Maine zones. Often revenue from the zones represents just a small (single digit) percentage of income for any one owner, but for the canyon zones in aggregate, or for the broad canyon/slope zones, some outlier individuals realize a much larger fraction of their annual revenue from the areas.

The Committee asked questions about the results that will help to refine future work. On the maps, there appear to be areas of revenue in very deep water beyond the shelf. These are based on the points reported in the VTR data, and would be included in the revenue and effort estimates for overlapping zones. Additional work can be done to compare VTR with VMS or observer data to determine when these are artifacts vs. real activity.

In terms of the denominator or baseline used in the percent revenue analyses, the PDT used the entire northeast region (i.e. all VTR reports). While this might make sense for some fisheries that span New England and the Mid-Atlantic, e.g. squid, a different baseline may make sense in some cases. For example, in the case of groundfish landings where separate stocks overlap the GOM

vs. canyon zones, it might be more useful to use just GOM statistical areas as the baseline for the GOM zone analyses. Another Committee member agreed it would be helpful to break out the results by region, and suggested that tables of values would be a useful addition to the figures provided. Staff agreed that tables would be helpful in future drafts of this work.

Staff confirmed that the analysis takes much the same approach as OHA2, and that there is a NOAA technical memorandum that describes the methods. A primary publication is in development. Additional peer review has not been discussed.

There was a discussion of the timeline for the amendment. If a monument designation is announced soon, and if lobster trap restrictions are not considered, a draft amendment could be reviewed sooner, perhaps in January. If a monument is announced later, the scope of the action is greater, or the clam dredge framework takes precedence, a draft amendment could be ready later. We do have the MAMFC coral amendment EA to build on in terms of analysis and background information. Similarly, it probably does not make sense to hold a workshop until the monument decision, and a decision about whether to consider exclusion of lobster traps, are made.

Mr. Borden suggested that 10% harvester reporting in Maine is inadequate to characterize impacts on the fishery, and asked if additional surveys of fishermen were possible to gather more information. Staff responded that the 10% of permit holders selected for reporting are intended to be distributed representatively across the A-G zones and permit categories (permits are by number of crew). While more data would be informative, given the large number of licenses (e.g. 900 in Zone A alone), this is likely a tall order. Mr. Alexander indicated that territoriality in fishing grounds is a very real phenomenon in the eastern Maine trap fishery, such that it may not be possible for lobstermen fishing within the zones to simply relocate outside, since other fishermen already set traps in those locations³.

Similarly, Dr. McKenzie asked how many permit holders had responded to the Area 3 survey, and if those results were representative. Although there were only 19 respondents who said they fished in the canyons, these respondents, additional respondents did not fish in the canyons, for an overall response rate of 35%, which is fairly good. Most respondents were aware of the coral amendment. It is really not possible to know whether knowledge of the amendment influenced survey responses.

Audience questions

Beth Casoni asked whether vessels can fish in more than one zone (A-G) in lobster Area 1. Ms. Bachman responded that vessels are permitted to fish in a specific zone, but can fish up to 50% of their traps in another zone. Ms. Casoni agreed that 10% is a low percentage reporting, and felt that 100% harvester reporting has been beneficial to Massachusetts lobstermen. She asked if the

³ There appears to be some scientific literature that documents territoriality in these areas, e.g. (1) Acheson, J.M. and Gardner, R.J. 2004. Strategies, Conflict, and the Emergence of Territoriality: The Case of the Maine Lobster Industry. *American Anthropologist* 106(2): 296-307. (2) Acheson, J.M. and Gardner, R.J. 2005. Spatial Strategies and Territoriality in the Maine Lobster Industry. *Rationality and Society* 21:197-224. (3) Acheson, J.M. and Gardner, R.J. 2010. The Evolution of Rules and Norms in the Maine Lobster Industry. *Ocean and Coastal Management* 53: 524-534.

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Council can request more reporting. Mr. Borden indicated that ASMFC had requested 100% VTR reporting. NMFS suggested that ASMFC would need to amend the FMP to request such a change. ASMFC's Lobster Board will meet about this issue. (Note that this would presumably not apply to vessels fishing in state waters only that do not have federal permits which could trigger a VTR requirement.)

Megan Lapp suggested that both WinPlot and Olex map displays be used at the workshop, and offered to put the Council in contact with individuals who could run those systems at a meeting. She also asked why the revenue heat maps displayed one year only, and Ms. Bachman responded that it was due to time limitations. All years in the analysis and maps by species are available. Ms. Lapp further commented that the butterfly fishery was essentially shut down for a couple of years, which should be noted in the results. She also asked about why blue crab were represented in the results, as they are a coastal species. Ms. Bachman indicated that if they were in the data as a top ten species, they were included in the plots. They could be misclassified Jonah crab, and the PDT will investigate further.

Jackie Odell (Northeast Seafood Coalition) asked why the period 2010-2014 was used, and asked if a longer time period would be possible to capture historical groundfish effort. Ms. Bachman indicated that data from as early as 1996 could be examined to look for historical trends in these locations.

Grant Moore (Atlantic Offshore Lobstermen's Association) asked if the Council has decided whether to regulate lobster traps, and Ms. Bachman responded that no, they hadn't.

Central Jordan Basin

Dr. Quinn asked if anyone wanted to make a motion on the central Jordan Basin zone.

MOTION 1: McKenzie/Gibson

Accept for analysis the PDT's recommended updates to the Central Jordan Basin coral zone.

Mr. Alexander noted that the northern of the two dive sites in Central Jordan Basin is commonly referred to as The Hat, and is heavily fished. He indicated that bottom at the southern dive site was not as hard as the northern site (this site had higher densities of corals).

Mr. Borden asked why Rhode Island vessels were not included on Table 1 in Document 2c. Ms. Bachman indicated that data from these vessels are reflected in the figures in the document, but that Table 1 was adapted from an ASMFC memo and only showed information for Maine and Massachusetts.

Motion 1 carried 7/1/0.

MOTION 2: Reid/T. Alexander

Consider for analysis 600 m and 900 m depth-based broad zones.

Mr. Reid indicated that when the MAFMC developed their coral action, they had 300-500 meter zones, based on the range of alternatives under consideration by NEFMC.

Ms. Bachman indicated that these proposals would not be analyzed immediately, given other tasks and time required to develop the boundary data. She also noted that it would be helpful to limit, if possible, the number of alternatives analyzed. Based on experience with OHA2, large numbers of alternatives mean that less effort can be expended on the analysis of each. That said, with these types of depth alternatives which are subsets of the 300 m zone, it is relatively easy to compare across a range of options.

Dr. McKenzie indicated that he wasn't privy to the MAFMC discussions about depth, but was concerned about workload, and about developing alternatives inconsistent with those analyzed by the MAFMC.

Mr. Reid indicated that MAFMC exempted red crab from their broad zones. The 900 m zone was endorsed by ASMFC in the monument context. 600 m is the maximum depth used by the lobster fishery, while 900 m is the boundary for red crab. It would be remiss to not analyze these options.

Public comment

Ms. Lapp suggested that analyses prepared for the MAFMC coral amendment suggested that 97% of the corals were deeper than 1,000 m. She agreed that the MAFMC used New England depth options when developing their broad zone alternatives.

Ms. Casoni supported the motion, including the 900 m line. Lobsters are moving north and east.

Committee discussion

Dr. Quinn asked if it would be possible to put some bounds on the timing of this analysis to reduce workload in the short term. Mr. Reid suggested that he wanted to see the options analyzed, whenever that could happen. Dr. McKenzie asked if a January timeframe would be appropriate, but Dr. Quinn suggested that Mr. Reid's statement above was sufficient.

In response to a question, Ms. Bachman clarified that yes, there is an option in the document to exempt the red crab fishery, but that the question of whether or not lobster traps might be restricted was still open. Mr. Reid confirmed that 600 m would eliminate the need for a lobster trap exemption. Mr. Grout asked if 900 m was necessary, given a possible red crab exemption. Mr. Borden suggested that perhaps the discussion of red crab could be tabled for a later meeting.

Mr. Reid amended the motion as follows:

Motion 2a: Reid/T. Alexander

Consider for analysis a 600 m depth-based broad zone.

Motion 2a carried 7/1/0.

Dr. McKenzie indicated that he was concerned about cherry picking alternatives, and suggested that it was important to let the process and analyses play out. Mr. Alexander asked if all corals were deeper than 1000 m. Ms. Bachman responded no, most of the recent sampling is deeper than 600 m, but there are historical records in shallower waters than that.

The Committee briefly discussed including restrictions on lobster traps in the amendment. Mr. Borden asked what is known about trap impacts on corals. Unfortunately the scientific literature is rather limited. A study from the Aleutian Islands⁴ suggests that longlines may have a greater impact than pots, but that both gear types have a lesser impact than trawls. However, fixed gears can be fished in locations that mobile gears cannot.

Someone suggested that restricting lobster traps in this amendment when the MAFMC did not evaluate such a restriction was inconsistent with the Memorandum of Understanding, which indicated that the Councils would seek consistency where possible. Another member felt it was better to have this discussion when additional members from Maine were present to participate in the discussion.

Mr. Borden suggested that the burden is on the Council to prove that the measures have a nexus with Council-managed fishery resources, as suggested by the NMFS guidance.

The discussion concluded with no specific recommendation regarding restrictions on lobster trap gear.

The meeting adjourned at approximately 3:35 p.m.

⁴ Heifetz, J., R. P. Stone, et al. (2009). Damage and disturbance to coral and sponge habitat of the Aleutian Archipelago. Marine Ecology Progress Series 397: 295-303.