

Surfclam and Ocean Quahog Advisory Panel
Fishery Performance Report (FPR) April 2018

The Mid-Atlantic Fishery Management Council's Surfclam and Ocean Quahog (SCOQ) Advisory Panel met on April 13, 2018 via webinar to review updates to the surfclam and ocean quahog fishery information documents and revise the 2018 fishery performance report based on advisor perspectives on these fisheries. The advisors also received an update on the New England Fishery Management Council (NEFMC) clam access framework under development from Michelle Bachman of their staff.

Council Advisors: Thomas Alspach, Thomas Dameron, Peter Himchak, and David Wallace.

Public: Tom Hoff

Staff, Council, and SSC Members: Jessica Coakley and José Montañez (MAFMC staff); Michelle Bachman and Rachel Feeney (NEFMC staff); Douglas Potts (NMFS-GARFO staff); Doug Litpon, Wendy Gabriel, and Ed Houde (SSC members).

Surfclam and Ocean Quahog

Quotas

The advisors would like to see *status quo* quotas for the upcoming fishing years; the stability in the quota translates into stability in the fishery and market.

Critical Issues (not in any priority order)

A current, critical challenge to the surfclam fishery is the approved New England Council's Omnibus Habitat Amendment (OHA2) which has banned bottom-tending mobile gear (including clam dredges) from Northeast section of Nantucket Shoal, which is a high energy sand environment. The surfclam fishery is the only fishery being prosecuted in the area to be closed. From April 9, 2018 to April 8, 2019 clam dredges will be allowed to operate as the NEFMC considers if they should continue clam fishing operations in the area. If the clam dredge exemption is not continued after April 8, 2019, this action has the potential to have large negative impacts from a biological, social, and economic prospective. If the exemption is not granted it will negatively impact the Mid-Atlantic Council's ability to manage its jurisdictional responsibilities for the surfclam fishery.

When the National Marine Fisheries Service (NMFS) announced their approval and disapproval of the various options on the OHA2 they disapproved the proposal that would close large portions of Georges Shoals in exchange for opening the most complex section of Georges Bank which has been closed for 20 years called the Northern Edge. At a follow-up meeting of the NEFMC's Habitat Committee, a representative of the scallop industry requested that a framework amendment to the scallop FMP be started to implement the disapproved Georges Shoal/Northern Edge alternative. The committee stated that the NEFMC's work plan is full and that consideration of the proposal would need to be taken up in the fall, when the 2019 work plan is developed.

The clam industry needs the support of the Mid Atlantic Council and NMFS in addressing these concerns. The Mid-Atlantic Council needs to be more involved in habitat issues that affect the clam fishery through the NEFMC process.

The Council is developing an excessive shares amendment to adopt an excessive share regulation, potentially as a percent cap, on individual transferrable quotas (ITQ) ownership. This is a concern for industry because it could interfere with the efficient operation of industry plants and fleets, because of issues related to possible divestment or limitations on further consolidation because of the high volume needed to be lucrative in this fishery. The industry is also concerned because NMFS has indicated that this issue must be addressed before other pressing issues, such as the mixed clam harvesting issue, can be addressed through an amendment action.

The mixing of surfclams and ocean quahogs, because of increased co-occurrence during harvesting operations, is an issue from a regulatory perspective. Regulations do not allow flexibility or a minimal tolerance for mixing, and could result in violations and fines if a few of the other species are mixed in with the landings. The industry voiced significant concern at the December 2016 MAFMC Meeting on this issue, hoping it would precede the Excessive Shares Amendment as a priority in 2017. The industry was informed that the mixing of surfclams and ocean quahogs on a single trip could be handled through a regulatory mechanism other than an Amendment. To date, the industry has seen no progress in addressing an unavoidable enforcement issue that must become a priority.

In May 2017, the SSC reduced the surfclam ABC to the level of the current quota. This occurred because there was no point value biomass estimate in the most recent assessment, which is needed for the SSC to set an OFL and then calculate an ABC.

This action sends a very negative signal about the sustainability of the resource to the industry's banks and customers. It will be a continuing issue for MSC, and it will impede long term planning for future growth, especially in untapped Asian markets.

The assessment needs to be corrected and improved to provide for a defensible biomass estimate, so that an OFL and ABC can be set using the same methodology the SSC always has employed in the past, and so the Council will have the calculations it is required to consider when setting annual quotas.

Market Issues

For surfclams and ocean quahogs, there are occasional landings in Ocean City, MD. It used to be significant, but is no longer. Cape May and Wildwood, NJ are no longer significant. Most of the fleet is fishing out of Pt. Pleasant and Atlantic City, NJ, Oceanview, NY, Hyannis, MA (surfclams only), and New Bedford, MA. Vessels have been moving North and shifting effort. For more details, see the Surfclam and Quahog Fishery Information Documents.

For Maine quahogs, the quahogs have increased to sizes larger than the preferred small size for the market, which explains the decline in the catch rates and prices for Maine quahogs. This fishery

could be due to a large set of clams that have grown out of marketable size, or the markets have changed.

Trucking costs and the distance needed to travel to harvest clams has put greater economy on scale and location. Fuel prices declined and stabilized in recent years giving some relief to industry participants.

The cost of complying with regulatory function has generally increased. The Cost Recovery process has been implemented and is a source of increased costs to the industry.

Vessels built after July 2013 and over 79 feet in length will need to be “classed,” and then subsequently kept in that class by inspections. This has created significant cost considerations that could be many times greater than what it construction cost prior to 2013 (2-3 times greater). Operations and inspection costs have also increased. This will result in vessels being kept in operation much longer than they should be.

The push to comply with global food safety requirements/initiatives and sustainability certification lead to additional costs. The global food safety ratings are being required by buyers, and if not satisfied could lead to buyers choosing not to use specific suppliers. The surfclam and ocean quahog fisheries are presently Marine Stewardship Council (MSC) certified for Federal surfclam and non-Maine ocean quahogs (see MSC website for details). Some of the larger clients of processors are demanding MSC certification. Many of the processors are undergoing chain of custody audits to enable use of the MSC logo.

The seafood imported into the US needs to be compliant with hazard analysis and critical control points (HACCP) but may not have to meet the third-party audits, which makes the domestic seafood more expensive. During a recertification process, it becomes more stringent than the initial certification ("keep raising the bar"); the facility could be found not compliant.

Increasing foreign imports and foreign competition puts a constraint on price, and the price cannot be increased to absorb all the additional costs and still be competitive in the market place. The limit in demand for clams in the market is driven by many market factors including foreign seafood competition, other products in the marketplace (e.g. chicken, etc.), shifting toward healthier market products (e.g. clam sushi, etc. versus a fried or cream-based product), and competition with other ingredients, as clams typically are not a center of the plate product. The overall retail market demand has been steady.

If just comparing landed value of surfclams and ocean quahogs to landed value of other fish seafood products, you would tend to underestimate the total economic value of that fishery. There is limited information on the multipliers for this industry. There is a large multiplier from the shucking plant to further processing. A study has been completed by SCeMFIS to examine these factors in more detail.

Environmental and Ecological Issues

Many species (including surfclams and ocean quahogs) are moving toward the poles or into deeper waters. This movement is temperature driven. Historically, about half the quota for quahogs used to be taken in the Southern area. Surfclams are increasing in these Southern areas, possibly because of the faster growth rates for surfclams settling when compared to quahogs. Some of the Southern beds that used to be quahog beds now have surfclam recruitments, which is contributing to mixing of species during harvesting operations (see Critical Issues section).

The natural shift in the stocks distribution northwards has driven the movement of the fishery. For more details, see the Surfclam Fishery Information Document.

There is a Nantucket Shoals spatial closure clam dredge exemption that will expire April 2019. The closure is intended to address bottom tending mobile gear impacts on habitat (see Critical Issues section). The NEFMC is attempting to identify areas within the HMA that are currently fished or contain high energy sand and gravel that could be suitable for a permanent hydraulic clam dredging exemption. The spatial area for the surfclam fishery on Nantucket Shoals is small and the gear impacts are considered to be minimal and temporary in nature, due to the high energy sand environments. An analysis based on 2011-2016 logbooks determined total revenue between \$3-\$8 million annually (vast majority from surfclams that are landed in Massachusetts). This will affect a small boat fleet numbering a dozen vessels and three hand shuck plants that have limited options to replace the supply of surfclams from Nantucket Shoals.

Energy Issues

Advisors ask the Council to provide the Bureau of Ocean Energy Management (BOEM) all relevant data on surfclam and ocean quahog habitat and highlight the devastating effect a BP like disaster would have on our fishery if oil and gas leases were given out in the waters to the south [in Mid-Atlantic] that are now under consideration.

The clam advisors are concerned about the BOEM wind farm leasing process and potential impacts to historically important fishing areas. The industry wants opportunities to engage with developers on wind array siting relative to the most productive clam fishing beds. Siting is critical in terms of ensuring reasonable fishing access. It has been the experience of the clam industry that any communications by BOEM or wind energy developers is purely perfunctory and true mitigation efforts will not be made.

The NY and MA windmill projects are out of control. BOEM and the states are going to allow the developers to do as they please except have the arrays nearshore where their rich beach front home owners can see them and complain.

In NY, the proposed 300 windmills will be placed in the ocean quahog grounds which now also have a large surfclam set in the deeper water offshore. ,

In MA, the developers are proposing to place the wind arrays in RI sound where the small and, in bad weather, the large quahogs boats work. In all cases, the developers have put the turbines as

close together as possible to get the max number of turbines in the area that they have leased. The result is that no bottom-tending mobile fishing gear will be able to operate within the arrays. All of this is being done with no consideration to the fishing industry and without any compensation to the vessel operators or the fishery.

These arrays become de-facto MPAs and the Councils and industry have nothing to say about how the fishing grounds are managed within the arrays. Unlike finfish, clams do not move, so once the vessels cannot fish in an area those resources are lost to the fishery.

General Fishing Trends

The landings per unit effort (LPUE) is not indicative of stock abundance because it only reflects the fishing occurring in a few ten-minute squares (see Fishery Information Documents). The LPUE has leveled off in recent years. The LPUE continues to be high on Georges Bank and there are 6 permitted vessels (4 currently fishing) in the open portion of the Georges Banks closed area.

Industry have voluntarily implemented two closed areas for small surfclams to maximize use of the resource. The areas are being monitored by industry members with the assistance of a Boatracs Operation Manager and the Boatracs Geofencing software. The areas have been closed since December 2015.

OY

The industry was comfortable with a maximum OY of 3.4 million bushels for surfclams in terms of production. For ocean quahogs a maximum OY of 6 million bushels is reasonable in terms of production. Landings for quahogs have been below the OY range because of demand for quahogs.

Also of Interest

The clam fishery is the first fishery doing electronic reporting on a per vessel and trip basis (“e-Clams”) and this voluntary program is being used by nearly all vessels. It is still being evaluated and tested by NMFS, so both paper and electronic logs are being used and matched. The information should be available in more real time once implemented.

LaMonica Fine Foods is progressing in the construction of a new clamming vessel that should be able to enter the fishery in the Fall of 2019. LaMonica Fine Foods donated the clamming vessel Lisa Kim to the NJ Artificial Reef Program's Wildwood Reef Site in the EEZ, foregoing potentially \$25,000 that could have come from scrap metal and then paying approximately \$60,000 to clean, tow, and reef the Lisa Kim on the designated reef site.

Members of the clam industry have hired a marine architect to produce drawings of the survey dredges to satisfy a request made by the NMFS Survey Branch. The selectivity dredge drawings have been completed and reviewed by the builder of the dredge. An additional visit will be needed to complete the drawings of the survey dredge and that visit will likely happen early May 2018.

A major conversion of the F/V Christi-Caroline (140 feet) is in the final phases. The F/V Christi-Caroline will return to the SC / OQ fisheries after eight years of being inactive.

Science and Research Initiatives

The Science Center for Marine Fisheries (SCeMFiS) is an industry, university, and National Science Foundation (NSF) supported research center and has several completed, ongoing and recently funded research projects:

- SCeMFiS, with contributions from NMFS NEFSC, has completed research into data corrections for the breakage of clams in survey mode. This research was taken up because of the additional breakage since switching over to an industry vessel for surveys. If any size clam, large or small, experienced disproportionate breakage the age demographic of the population would not be accurately represented in the assessment. The final report is available on the SCeMFiS website: <http://scemfis.org/>.
- SCeMFiS has completed the fabrication of a dredge for the collection of juvenile (pre-recruit size) ocean quahog and surfclams. The new Dameron-Kubiak dredge, to be used for selectivity sampling typically conducted during survey operations, has been tested by the NEFSC, NMFS, and found to improve selectivity experiments. The final report is available on the SCeMFiS website.
- SCeMFiS has evaluated an area management strategy for the surfclam fishery as one of its projects. The final report is available on the SCeMFiS website.
- SCeMFiS has funded ocean quahog recruitment and life history dynamics research. This research does not agree with the long-held belief that major quahog recruitment events appear to be separated by decades, that ocean quahogs are relatively unproductive with infrequent recruitment thus vulnerable to overfishing and potential contribution of recruitment to stock biomass and productivity is unknown. The Dameron – Kubiak dredge has shown regular recruitment from the last 60 years down to 10 years of age where the dredge efficiently captures animals. (Recruitment of the ocean quahog (*Arctica islandica*): size and age structure in collections with the Dameron-Kubiak dredge in summer 2014. A final report to Industry Advisory Board (IAB) of the SCeMFiS project number: 2014-02- RM-VIMS is now on the SCeMFiS website. Ongoing studies of age structure from 60 – 180 years of age show regular recruitment with lower reports of very old animals probably due to natural mortality. Major recruitment events appear to be more by chance of larval survival and the fact that the stock is near carrying capacity. A publication has been developed and is available on the SCeMFiS website.
- SCeMFiS has funded a surfclam and ocean quahog assessment team made up of Drs. Daphne Munroe, Eric Powell and Roger Mann. The team will attend meetings of the Invertebrate Subcommittee, SAW and MAFMC SSC and support the academic commitment to the ocean quahog benchmark assessments. The team will provide new information through the Invertebrate Subcommittee process on historical and recent recruitment to address SSC concerns. The SCeMFiS team will interface with and provide support to the NMFS assessment team during the assessment process with the goal of reducing uncertainty in the assessment process.
- SCeMFiS has generated GIS layers for the Nantucket and Georges Bank Closed Areas in response to fishing restrictions by the creation of Habitat Management Areas in the regions. The surfclam fishery is seeking an exemption because the bottom type occupied

by surfclams is primarily sand and so is not the type of bottom identified as important habitat for protection under the closure. Information on bottom type, however, is spotty relative to the scale of the closed areas and the locations potentially fishable using hydraulic dredges. The SCeMFiS team has analyzed NMFS survey data and data from the fishing fleet operating in the NS/GB region to provide improved differentiation between habitat of concern and high-energy sands supporting surfclam production. These analyses provided information on sub-regions in the HMAs supporting live market-size surfclams and regions of complex habitat as evidenced by the presence of un-towable bottom, location of reported dredge damage (by inference bottom with boulders or other obstructions), and locations where the survey dredge caught cobbles, rocks, and boulders.

- At the April 27, 2017 SCeMFiS Industry Advisory Board meeting an ocean quahog project was funded to validate estimation procedures for an age-at-length key. This research will provide the basis for development of an age-dependent assessment model and a better understanding of the uncertainties and an improved ability to manage risk and achieve maximum sustainable yield from the ocean quahog biomass. Knowledge transfer for this project is scheduled for April 2018. Additionally, the final report in the form of publications, and presentations will be available at various management venues as deemed necessary. Model code will be provided to NMFS if requested.
- At the April 27, 2017 SCeMFiS Industry Advisory Board meeting a survey of surfclams southeast of Nantucket was funded. The surfclam fishery southeast of Nantucket remains outside of the area surveyed by NEFSC due to shallow depths, strong tides and bottom topography that makes operation of a large survey vessel intractable. The active fishery area was surveyed and information was provided to the EFH discussion on surfclam stock status, habitat and economic impact to the local fleet.
- At the April 27, 2017 SCeMFiS Industry Advisory Board meeting a project was funded to evaluate alternative approaches to risk-based catch advice. Methods for risk-based catch advice have been reviewed to evaluate the alternative control rules for determining Acceptable Biological Catch (ABC) for shellfish fisheries. Results can inform a subsequent management strategy evaluation tailored to Mid-Atlantic shellfish stocks. Knowledge transfer for this project is scheduled for April 2018.
- At the April 27, 2017 SCeMFiS Industry Advisory Board meeting an ocean quahog project was funded to support population modeling to interpret population age frequencies. The project will address the concerns that the present model tends to underestimate asymptotic abundance and that the present model cannot interpret New Jersey and Long Island ocean quahogs because growth rates vary over the time history of the population. This project will build on previous SCeMFiS funded work by Roger Mann and Sara Pace and will be supported by additional data provided by a S-K grant to Mann. Knowledge transfer for this project is scheduled for April 2018.