

Surfclam and Ocean Quahog Advisory Panel
Fishery Performance Report (FPR) May 2017

The Mid-Atlantic Fishery Management Council's Surfclam and Ocean Quahog (SCOQ) Advisory Panel met on April 18, 2017 in-person in Philadelphia, PA to review updates to the surfclam and ocean quahog fishery information documents and revise the 2017 fishery performance report based on advisor perspectives on these fisheries.

Council Advisors: Thomas Alspach, Thomas Dameron, Peter Himckak, Samuel Martin, Joseph Myers, and David Wallace.

Public: Thomas Hoff.

Staff and Council Members: Jessica Coakley (Staff), Peter DeFur (SCOQ Committee Chair), and José Montañez (Staff).

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 critical current challenge to the surfclam and ocean quahog fishery is the New England Council's Omnibus Habitat Amendment which has the potential to ban bottom tending mobile gear (including clam dredges) from high energy sand environments, where the surfclam and ocean quahogs fishery is the only fishery being prosecuted. This action has the potential to impact the spatial distribution of the fishery, which will result in biological impacts as well as social and economic impacts. It also impacts the Mid-Atlantic Council's ability to manage its jurisdictional fishery for surfclam and ocean quahogs. The industry needs the support of the Council and National Marine Fisheries Service (NMFS) in addressing these concerns. The Mid-Atlantic Council needs to be more involved in habitat issues (and other issues) that are being proposed through the New England Council 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 would like the Council to address this issue.

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 changes.

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 on 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) certificated for Federal surfclam and non-Maine ocean quahogs (see MSC website for details). Some of the larger clients of processors are demanding the MSC certification. Many of the processors are undergoing chain of custody audits to enable use of 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 (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 S CeMFIS 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 area off the Southern area. The 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 are proposed spatial closures that are being considered to address bottom tending mobile gear impacts on habitat (see Critical Issues section). The spatial area for the fishery is small and the gear impacts are considered to be minimal and temporary in nature, due to the high energy sand environments.

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.

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 closed areas for small surfclams to maximize use of the resource.

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.

A new vessel Seawatcher II has just been launched (159 feet) and another processor is close to signing contracts to build another vessel.

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 will analyze 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 will provide 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.
- 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 objective is to survey the active fishery area and provide information 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 will be 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.

- 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.