

Commercial Mesh and Minimum Size Discussion Questions

Summer Flounder, Scup and Black Sea Bass Monitoring Committee

July 19, 2018

Mesh Size Study Context and Objectives

A mesh size selectivity study for summer flounder, scup, and black sea bass was funded by the Mid-Atlantic Fishery Management Council's Collaborative Fisheries Research Program to address the Council's research priority to "determine mesh selectivity for summer flounder and/or black sea bass and to quantify selectivity at a range of mesh sizes, shapes, and configurations." This priority was identified, in part, as a result of the Monitoring and Technical Committee recommendation that "new gear studies would be beneficial, as most mesh size selectivity studies for summer flounder were done in the 1970s and early 1980s, when different net materials were used. The MC/TC therefore recommends updated studies be conducted before any changes to required mesh sizes are implemented." The objectives of the study were to:

- Effectively determine the selectivity of 4.5" diamond, 5" diamond, 5.5" diamond, 6" diamond and 6" square mesh codends for all 3 species
- To determine if one or more of these mesh sizes effectively reduces the catch of juvenile summer flounder, black sea bass and scup
- To evaluate the current mesh size regulations relative to current minimum retention size of each of these 3 species
- To demonstrate what the potential is for a possible successful common mesh size to reduce discards in the Mid-Atlantic fisheries
- To complete an applied experiment across a wide range of strata and conditions including: areas, depths and bottom types, which are reflective of the summer flounder, black sea bass and scup fisheries
- Validate these results for fishery managers and fishermen

Minimum Mesh Size Regulations

- **Main question for the Monitoring Committee to consider:** do the results of this study present evidence that any of the current mesh size regulations should be changed or further evaluated to see if changes are warranted? If so, what additional analyses and input are needed?
 - **Potential management objectives** to consider could include reducing discards of undersized fish, reducing catch of immature fish, or reducing regulatory complexity in one or more of these fisheries.
- Is it worth considering a **common minimum mesh size** under the current commercial minimum size limits for all three species? For any two species?

- If not, is it worth considering a common minimum mesh size for all three species under modified commercial minimum size limits? If so, what minimum size limits?
- **Possible additional mesh size analyses to consider:**
 - How frequently are different mesh sizes used for each species? Specifically, how common is the use of a 5" mesh (vs. 4.5" regulation) for black sea bass? [Observer data, VTR data, industry input]
 - How mixed are the trawl fisheries? Are people generally targeting one of the three species at a time? [Observer data, VTR data, industry input]
 - Does the 6" square mesh for fluke result in too many discards of small fish?
 - What other analyses should be conducted for exploring possible mesh size changes, if appropriate?
- In the fall of 2015, the Monitoring and Technical Committees conducted a detailed review of commercial management measures for summer flounder, scup, and black sea bass and concluded that "changing the minimum mesh size requirements could create an economic burden for fishermen if it required them to purchase new gear. The MC/TC recommended that if the Council and Board decide to change the minimum mesh size in the future, that they provide a significant amount of lead time with the notice of the change before enacting the new regulations to allow time for fishermen to plan for the cost of replacing gear."

Additional Issue to Revisit: Commercial Minimum Fish Sizes

- The Monitoring Committee has again been asked to consider the potential for eliminating the commercial minimum size limit for trawl vessels using the appropriate minimum mesh sizes.
- During the commercial measures review in the fall of 2015, the Monitoring and Technical Committees concluded the following for each species:
 - Fluke: The MC/TC recommended no changes to the minimum fish size for summer flounder as the current specifications are above the L₅₀ for maturity (length at 50% maturity) and are therefore protective of immature fish). The MC/TC emphasized that a decrease in the commercial minimum fish size was not recommended in part because it would increase the disparity between the commercial and recreational minimum fish sizes, which could increase discontent and conflict within the fishing community as well as increase enforceability issues. Eliminating the commercial minimum size and relying on trawl mesh specifications to limit mortality of smaller summer flounder, as proposed by several advisors, is not feasible to enforce under the current management framework given that summer flounder are targeted using other commercial gear types.

- Scup: The MC/TC recommended that the commercial minimum size for scup remain at 9 inches TL. The MC/TC noted that because such a high proportion of scup discards are smaller than 9 inches, reducing or eliminating the minimum size (as requested by some advisors) could significantly shift selectivity of the fishery and would increase harvest of immature fish. The MC/TC cautioned that this could have negative effects on scup biomass. The MC/TC also noted that reducing or eliminating the minimum size could increase mortality in the commercial pot/trap and hook and line fisheries, which respectively accounted for 3.6% and 4.6%, of commercial scup landings between 2010 and 2014. Eliminating the commercial minimum size and relying on trawl mesh specifications to limit mortality of smaller scup, as proposed by some advisors, is not feasible to enforce under the current management framework given that scup are targeted using other commercial gear types. The MC/TC also noted that the federal commercial and recreational minimum scup sizes are currently identical, which is generally considered beneficial from an equity and enforceability perspective.
- Sea bass: The MC/TC did not recommend any changes to the minimum fish size for black sea bass having not reviewed any new information on which to base a change.

Potential Areas of Input for Advisors (for MC discussion)

- Do the advisors see reasons for the minimum mesh sizes to change?
- What mesh sizes are currently used for each species, and to what extent?
 - For black sea bass, are most trawls using 5" mesh already?
 - For summer flounder, how common is the use of 6" square instead of 5.5" diamond?
- Do advisors see potential benefits to having a common mesh size for 2 or 3 of these species?
- How burdensome would a phased in modification to mesh size regulations be, if it required switching to larger mesh nets?