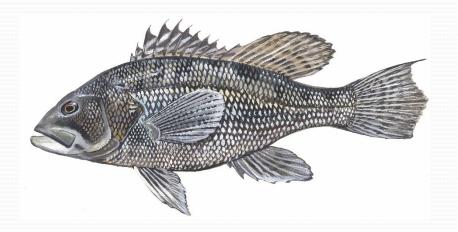


Black Sea Bass Fishery Performance Report Update



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Process

- 1. Review Fishery Information from FPR App
- Review 2017 FPR Report and edit information as needed
- View Discussion Questions and respond as needed with information not covered in edits to the current FPR
 - Specific questions from the SEDAR 76 analytical team are highlighted in the Discussion Questions doc



Stock Observations - NC

- Healthy abundance of fish off NC, but strong catches are occurring later in the year (late Oct/Nov vs Sept in mid-2000s) because water is staying warm longer
- NC Diver Abundance had recently decreased
- NC Private Rec Fish >13 inches not available inside 12 miles, mostly out of reach for average private angler; warmer water in inshore areas
 - Summer 2017 in 60-90 ft (~18 miles out), large numbers of 12 inch fish were being caught and had to be released
- Can become abundant on artificial reefs, but do not remain there long enough for anglers to have continued access



Stock Observations - FL

- Decline in abundance off Ponce Inlet, FL
 - Typically a cold-water/winter fishery, warmer water in winter has kept fish from coming into the area
- Decline in abundance off E Florida reflected in fishermen leaving the commercial pot fishery
- A potential increase in abundance off E Florida was noted after the 2017 hurricanes, with water cooled after the storms
- All sizes of BSB being seen in FL; small fish have been seen close to shore (50 ft) near Ponce Inlet and in crab traps in the rivers
- Observed feeding on crabs, worms, scallops, etc. on live bottom areas
- Size of fish has not changed, but size is tied to water temperature; colder water -> larger BSB



Stock Observations - GA

- Potential decline in abundance
- More small BSB offshore (potentially a strong year class?)

Stock Observations - General

 Higher abundance of BSB on natural reefs than artificial reefs



Com Observations - NC

- Price has been impacted by increased ACL for the Greater Atlantic region trawl fishery
 - Decline in price per pound for large fish, but increase in the price for medium fish
 - Trawl fishermen can be size selective based on mesh size of nets
 - Lack of medium fish in the market has benefitted the NC com fishery

Com Observations - FL

- Demand and price for BSB is increasing
- Sharp decline in average catch per trip for a pot fisherman in 2013-2014
 - Fishing year changed and area closed to pots to protect migrating whales
- From about 2009, BSB pot effort increased in response to high abundance
 - An area closure was being considered to protect red snapper (17A), but ultimately not implemented
 - Fishermen's behavior may have been affected;
 movement to pot fishing because they thought that was one of the only ways to continue fishing if the proposed closure took effect



Com Observations - General

- Restaurant price for BSB has increased
- A lot of pot endorsements have been transferred, but some of the new holders are not using the endorsements in the winter due to targeting other species that time of year



Rec Observations - NC

- Landings numbers may indicate a decline in abundance, but water temperatures have contributed to fish staying offshore (and inaccessible for many rec anglers) longer
- Charter clients do not book specifically for BSB, but they are part of the "grab bag" that attracts people
- For every legal-sized BSB, 4-5 are released (often ~12 inches); frustrates customers



Rec Observations - FL

 Demand for BSB charters has decreased due to the minimum size limit being too large

Rec Observations - GA

 Demand for BSB has not changed, but charters have shifted to targeting sheepshead instead



Rec Observations - General

- Decline in S Atlantic landings since about 2011 due to decline in abundance and a recreational minimum size limit that is too large
- Decline in some charter demand due to people not being able to keep as many fish as they would like

Management Measures

- 11-inch commercial minimum size limit is appropriate
- If commercial catches continue to increase, re-allocation of gear (pot vs. hook-and-line) ACLs may be needed
- 13-inch recreational minimum size limit is not appropriate; combined with warmer water and large fish being more offshore, has had a large impact on the fishery
- ACLs are appropriate, but responding to abundance fluctuations by changing the ACLs is not advised; more stability is needed
- Current mesh size specifications for pot fishery are appropriate as long as the com minimum size limit does not change
- Pot area restriction has pushed FL fisherman off prime fishing grounds



Environmental/Ecological Observations - FL

- Off Ponce Inlet, FL, lack of cold water over several years
 - BSB inshore migration, typically in winter, has not taken place in some time
 - Could also be contributing to fewer right whale sightings
- Spawning off FL primarily occurs Jan-Mar
- Spawning off NC primarily occurs Mar-Apr
- Large habitat range, including inshore crab traps (FL) out to 600 feet of water; fishing mortality is small factor in overall abundance
- Management actions like minimum size limits have been ineffective in keeping the population healthy
- Short-lived animals with early maturity and ability to adapt to changing conditions
- Environmental factors drive the abundance



Research Recommendations

- Recruitment monitoring with small mesh traps
- Importance of offshore habitats as nurseries
 - Studies suggested that estuarine nurseries may be more important than offshore ones; however, these data were limited and more research was needed
- Conduct analyses to establish the appropriate minimum size limit that would achieve MSY before considering minimum size limit changes
- Fishery independent sampling should be expanded to include winter months to inform year-round fisheries
- May be useful to look at interannual water temperature variability and how it may have affected BSB abundance



Other Observations

- Lionfish were expected to be caught in pots, but seem to be more attracted to traps
- Lionfish continue to be abundant and problematic in the S Atlantic
- Chevron trap fishery-independent index is informative of status and effective at catching BSB; however, following large recruitment event in 2011, declining index may indicate that recruitment has slowed in that area, but not necessarily that the stock is in trouble
- Red snapper and lionfish abundance may be impacting BSB recruitment

