

Research Priorities and Recommendations to Support Interjurisdictional Fisheries Management

BLACK DRUM

(Full Citation: Atlantic States Marine Fisheries Commission. 2015. Black Drum Stock Assessment and Peer Review Reports. ASMFC, Arlington, VA. 351pp.)

HIGH PRIORITY

- Age otoliths that have been collected and archived.
- Collect information to characterize the size composition of fish discarded in recreational fisheries.
- Collect information on the magnitude and sizes of commercial discards. Obtain better estimates of bycatch of black drum in other fisheries, especially juvenile fish in south Atlantic states.
- Increase biological sampling in commercial fisheries to better characterize the size and age composition of commercial fisheries by state and gear.
- Increase biological sampling in recreational fisheries to better characterize the size and age composition by state and wave.
- Obtain estimates of selectivity-at-age for commercial fisheries by gear, recreational harvest, and recreational discards.
- Continue all current fishery-independent surveys and collect biological samples for black drum on all surveys.
- Develop fishery-independent adult surveys. Consider long line and purse seine surveys. Collect age samples, especially in states where maximum size regulations preclude the collection of adequate adult ages.
- Develop a protocol to alert the SASC to any major changes in harvest and F that could trigger a reassessment of the reference points similar to the 'rumble strips' approach developed by the MAFMC for data-poor stocks.
- Increase age sampling along the coast. Juvenescence of the population is a good indicator of overfishing, and the availability of age data is crucial to being alerted to such changes in age structure.
- Indices, such as the South Carolina trammel net survey, could be used directly in an extended version of DB-SRA. The implementation of xDB-SRA could instead specify stock status at an earlier time period, thus allowing the most recent catches to inform population dynamics and thus stock status.

MODERATE PRIORITY

- Conduct reproductive studies, including: age and size-specific fecundity, spawning frequency, spawning behaviors by region, and movement and site fidelity of spawning adults.
- Conduct a high reward tagging program to obtain improved return rate estimates. Continue and expand current tagging programs to obtain mortality and growth information and movement at size data.
- Improve sampling of night time fisheries.
- Conduct studies to estimate catch and release mortality rates in recreational fisheries.
- Collect genetic material (i.e., create “genetic tags”) over a long time span to obtain information on movement and population structure, and potentially estimate population size.
- Obtain better estimates of harvest from the black drum recreational fishery (especially in states with short seasons).