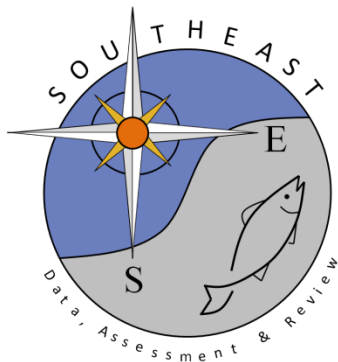


Recent Black Grouper Publications (2010-2017)

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SEDAR 48 - Recent Black Grouper Publications (2010-2017)

Ault, et al., (2013) – A spatially limited study of the efficacy of no-take marine reserves (location was exclusively in the Dry Tortugas, Florida). Role of no-take was evaluated with respect to ‘enhancing and sustaining regional coral reef fisheries’. Black grouper within the different management zones didn’t show any appreciable differences in relative densities nor length frequencies. No information is presented that can be used to determine stock ID status between the Gulf and South Atlantic.

Babcock, et al., (2013) – Based on the spear gun fishery at Glover’s Reef, Belize, this study attempted to use catch length frequencies to infer whether each of the eight most common species was likely to be overfished or experiencing overfishing. Black grouper were found to be overfished. No information is presented that can be used to determine stock ID status between the Gulf and South Atlantic.

Begossi, et al., (2012) – A study of coastal artisanal fishers landing patterns in Brazil, showing that that catches were dominated by ‘before-mature’ reef fishes, such as groupers and snappers. Black grouper made up 10% of the catches in some locations. A spatially limited study, and it provided no information that can be used to determine stock ID status between the Gulf and South Atlantic.

Bender, et al., (2013) – Study documents a shift in environmental baselines among 4 generations of fishers in Brazil, neighboring a marine park. Black grouper were noted for their overall catch decline, and most cited across generations as being overexploited. Like other spatially limited studies, this study also did not provide any new information that can be used to determine stock ID status between the Gulf and South Atlantic.

Bernard, et al., (2012) – Study reports the development and characterization of 15 microsatellite loci based on 40 Nassau grouper samples. They also demonstrate the cross-amplification utility of these microsatellites for genetic studies of five other grouper species of conservation interest, of which one was black grouper. Study is primarily interested in Nassau grouper, and does not provide any information that can be used to determine stock ID status between the Gulf and South Atlantic.

Brulé and Colás-Marrufo, (2012) – Study reports on the methods to distinguish regenerating ovaries from immature ones in three commercially important hermaphroditic grouper species from the southern Gulf of Mexico. While this study might be informative for the Life History Working group, in terms of estimating median size and size-frequency distributions among females in different reproductive phases, it does not provide any information that can be used to determine stock ID status between the Gulf and South Atlantic.

Catano, et al., (2015) – Study reports on field experiments using predator decoys of the black grouper to investigate how reef complexity interacts with predation risk to affect the foraging behavior and herbivory rates of large herbivorous fishes. Only decoys of black grouper were used, so no information about the stock ID status between the Gulf and South Atlantic can be found.

Clark, et al., (2014) - Study documents fish and benthic invertebrate community observations from the Flower Garden Banks via diver surveys, ROV observations, and acoustic methods. Black grouper abundances, densities, habitat associations are compared between the East and West Banks. No information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Farmer and Ault, (2011) - Study reports on home ranges, activity patterns, and habitat preferences of black grouper in and around no-take marine reserves in southern Florida (via acoustic tagging techniques). While spatially limited, this study does further the observations of SEDAR 19 (via tagging studies) in that black grouper only move short distances.

Freitas, et al., (2011) – Study identifies spawning patterns of a number of commercially important reef fish off Brazil. A large amount of spawning information for black grouper is presented, but because it is out of the immediate management area for SEDAR 48, little information that can be used to determine stock ID status between the Gulf and South Atlantic can be gleaned from this study.

Hackerroot, et al., (2013) – Study documents the abundance (density and biomass) of lionfish and native predatory fishes that could interact with lionfish (either through predation or competition) on 71 reefs in three biogeographic regions of the Caribbean. Black grouper are one of the primary predatory fishes for this work. Unfortunately, interactions with native predators did not influence the colonization or post-establishment population density of invasive lionfish on these Caribbean reefs. No information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Ilhde, et al., (2011) – A meta-data study that shows the harvests from recreational fishing are increasingly as important as commercial harvest to populations of popularly fished marine recreational species. Black grouper are noted for their declines in both the recreational and commercial sector, along with 25 other species. No other information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Japp, et al., (2014) – Study reports on the reef fish landings from the eastern Gulf of Mexico, focusing on the hard bottom banks and reefs primarily off the Florida coast. It documents a declining trend in commercial landing of black grouper, but does not provide any information that can be used to determine stock ID status between the Gulf and South Atlantic.

Koch, (2011) – MS Thesis with chapters covering, 1. Biology and ecology of black grouper; 2. Site fidelity and patterns of movement; and 3. The ‘Political’ ecology (intentional mis-labeling commercial catches in restaurants) of this species. Based in limited movements, this study reinforces the ideas in SEDAR 19, in that this stock is a single unit stock spanning both the Gulf and South Atlantic.

Locke, et al., (2013) – Study documents factors influencing fish diversity (in addition to a number of other groups of taxa) in Bermuda, and compares them to the Bahamas, East Coast of the U.S., and the Caribbean. Specifically for black grouper, this study reinforces the idea that fish from Bermuda are significantly different (genetically) from those in southeastern United States, Gulf of Mexico and the western Caribbean, although there are no differences among those locations. This is in agreement with the findings of SEDAR 19.

Olavo, (2011) – Study reports on specific habitats thought to be priority areas for conservation, with respect to a number of reef fish in the tropical Atlantic. Black grouper were noted for specific depth distributions, as well as close association with shelf-edge habitat. Additionally, black grouper are noted to be ‘overexploited or threatened by overexploitation’. No other information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Paiva, et al., (2015) – Study used mooring buoys to verify temporal and spatial variation on the settlement of competent fish larvae in the Itacolomis Reefs, Abrolhos Bank, Brazil. Of the 459 individuals that settled during the summer and winter of a single calendar year, only a single (quite large!! compared to the other types of reef fish settling out of the plankton) black grouper was documented. No information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Schäerer, et al., (2014) – Study documents passive acoustic and synchronous video recordings made at two spawning aggregation sites associated with reproductive behaviors of black grouper. Study may be of interest to the Life History group, although it provides no information that can be used to determine stock ID status between the Gulf and South Atlantic.

Simon, et al., (2011) – Study compared the length frequency, mean biomass and the frequency of occurrence of black grouper (in addition to a number of other species targeted by local fisheries; e.g., snappers, jacks, and other groupers) located on artificial reefs and natural reefs off the coast of Brazil. Black grouper were far more abundant on the natural reefs in this study. Given the study location, no additional information that can be used to determine stock ID status between the Gulf and South Atlantic is presented.

Teixeira-Neves, et al., (2015). – Study assessed the fish assemblage structure over 22 rocky shores with different physical complexity and benthic cover in Ilha Grande Bay, Southeastern Brazil. Black grouper were identified as undergoing ‘heavy fishing pressure’, and associated with deeper habitat structure (similar to many other studies in terms of this species’ distribution). Like a number of other recent studies, this study is of a limited spatially range, and does not offer any additional information that can be used to determine stock ID status between the Gulf and South Atlantic.

Torres, et al., (2013) – Study was primarily focused on goliath grouper, and DNA barcoding methods to differentiate goliath grouper from other exploited epinephelids in order to provide procedures for DNA authentication to be used as evidence for combating putative illegal fishing. The results provided useful DNA authentication tools for identifying goliath groupers from black groupers without morphological characters in hand, as in fish markets. These techniques also differentiated a number of other epinephelids from goliath groupers. In terms of stock ID assessment, no information that can be used to determine stock ID status between the Gulf and South Atlantic was presented.

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