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Greater Amberjack

The king of the jacks, the greater amberjack is found in the Atlantic and Pacific oceans. In the western Atlantic, these fish range from Nova Scotia to Brazil, including the Gulf of Mexico and Caribbean Sea. The greater amberjack is one of several dozen species of reef fish, inhabiting natural (e.g., rocky outcrops) and artificial (e.g., wrecks, oil platforms) seafloor structures. Greater amberjack can grow up to 6 feet and 200 pounds, have a maximum lifespan of about 15 years, and are fished commercially and recreationally in the U.S. South Atlantic and Gulf of Mexico.



*Greater amberjack is the largest jack species, measuring up to 6 feet in length.
Photo by David Hay Jones*

Greater Amberjack Management

Some fish stocks are easier to manage than others, and Gulf of Mexico greater amberjack is certainly on the difficult end of the spectrum. While greater amberjack in the U.S. South Atlantic are not overfished nor undergoing overfishing, the Gulf of Mexico stock is both overfished and undergoing overfishing. [Note that “overfished” means there are too few fish in the stock, whereas “overfishing” means the rate of harvest is too high.] This is not a new problem for Gulf of Mexico greater amberjack – in fact, this stock has been overfished and undergoing overfishing for decades and is now in its third rebuilding plan! The Gulf of Mexico Fishery Management Council has implemented many regulations for Gulf of Mexico greater amberjack over the years, such as closed seasons, reductions in catch limits, and increases in size limits. Unfortunately, despite these measures, the stock is still struggling to rebuild from past fishing pressure.

The Greater Amberjack Count



An underwater camera on a remote operated vehicle in the Gulf of Mexico captured this school of greater amberjack near a pyramid deployed by the State of Alabama to provide fish habitat. The University of South Alabama is leading an \$11.7 million study in tracking and counting greater amberjack to ensure sustainable fisheries.

The stark contrast between the U.S. South Atlantic and Gulf of Mexico greater amberjack stocks is raising questions with respect to science and management. *Why is the U.S. South Atlantic stock doing well, and why has the Gulf of Mexico stock failed to rebuild? How are these stocks similar, and how do they differ? In*

response to these unknowns, Congress appropriated funds for an extensive \$11.7 million greater amberjack study referred to as the [Greater Amberjack Count](#).

Like the preceding Great Red Snapper Count, the Greater Amberjack Count's overarching goal is to estimate the number ("absolute abundance") of greater amberjack in the Gulf of Mexico. However, the Greater Amberjack Count will be more comprehensive and challenging than the Great Red Snapper Count for several reasons. First, there is less prior knowledge of greater amberjack biology and ecology compared to that of red snapper, so the Greater Amberjack Count will also aim to expand knowledge of greater amberjack distribution, movement, growth, and mortality. Second, greater amberjack are much more mobile than red snapper, so greater amberjack will be inherently more difficult to study. Third, the Greater Amberjack Count will encompass a larger study area (the U.S. South Atlantic and Gulf of Mexico) than the Great Red Snapper Count (the Gulf of Mexico only).

In acknowledgment of the importance of stakeholder involvement in these types of studies, the Greater Amberjack Count is relying on stakeholder (i.e., fishermen) participation during several components of the project.

1. Before the project even began, fishermen participated in a "visioning" process to help scientists identify and prioritize regional research needs. Through this process, fishermen of all sectors identified the following three research questions as the most pressing:

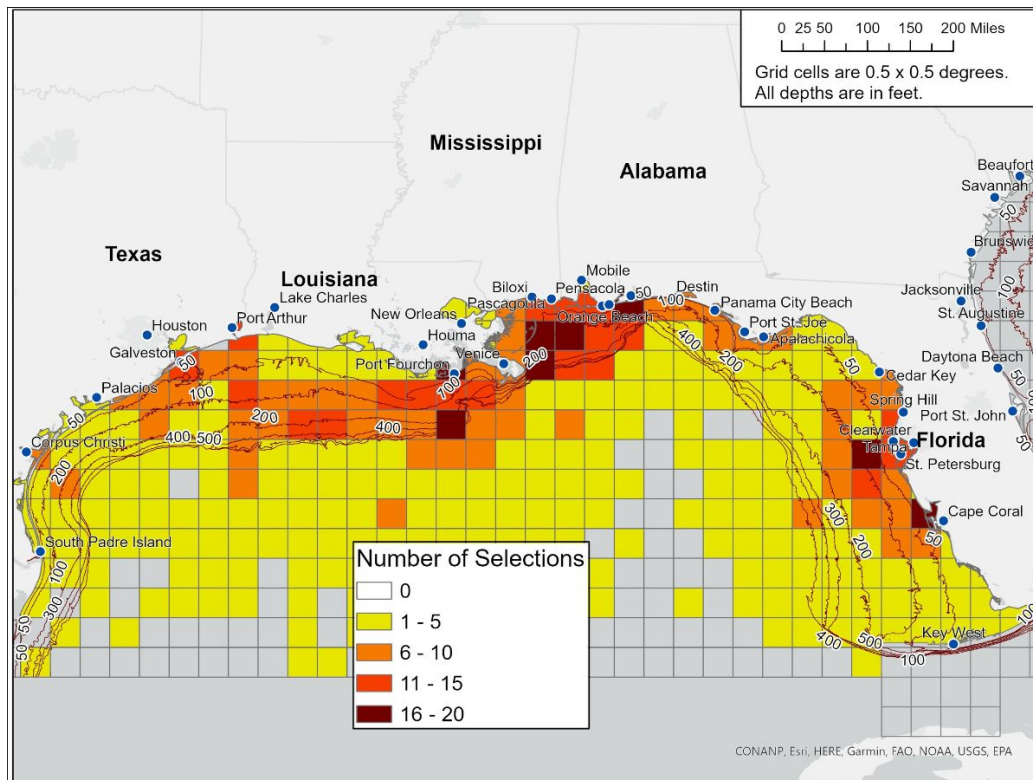
Abundance: *what is an estimate of greater amberjack absolute abundance, and to what time scale does it apply?*

Distribution: *how are greater amberjack distributed throughout the U.S. South Atlantic and Gulf of Mexico?*

Movement: *are there movement patterns to account for (direction, magnitude, seasonality, etc.)?*

2. During the first year of the project, fishermen of all sectors contributed local ecological knowledge – their comprehensive understanding of the greater amberjack stock and fisheries, generated through long-term interaction with this stock and its fisheries – to identify areas and habitats of higher greater amberjack abundance. The project team used this information to design field surveys such that most of the surveys will be conducted in places of expected higher greater amberjack abundance, thereby maximizing efficiency. Participatory mapping questions in the local ecological knowledge survey asked

fishermen to select locations where they would expect greater amberjack abundance to be highest.



Participatory mapping questions in the local ecological knowledge survey asked fishermen to select locations where they would expect greater amberjack abundance to be highest. Map by Savannah Swinea

3. Like the Great Red Snapper Count, the Greater Amberjack Count involves a [wide-scale tag-return initiative](#). Scientists have recently begun deploying two types of tags on greater amberjack throughout the project's study area. Some greater amberjack are being fitted with acoustic tags – electronic transmitters surgically implanted inside a fish's body cavity. Many more greater amberjack are being fitted with conventional tags, which are simple, plastic-coated objects that are applied externally and resemble colorful streamers. Some greater amberjack will have one conventional tag, while others will have two ("double-tagged"). This strategy will help scientists determine how often greater amberjack shed their conventional tags. Notably, all acoustically-tagged greater amberjack will also be tagged with one or two conventional tags. The success of the conventional tagging study critically depends on participation from fishermen of all sectors. Upon catching a conventionally-tagged greater amberjack, fishermen should call the phone number printed on the tag(s) to report the recapture to the Greater Amberjack Count project team. Each tagged greater amberjack, regardless if it has one or two tags, will carry a reward of \$250. The physical tag(s) must be mailed in to claim the reward, so fishermen should clip off and save the tag(s), even if they plan to release the fish.

For more information about the Greater Amberjack Count, including tag-return instructions, visit the project webpage [here](#).



Captain Brett Falterman of Fish Research Support displays a conventionally-tagged greater amberjack before releasing the fish off the coast of Louisiana. Photo insert: Each of the small, colorful conventional tags will display a unique five-digit number and a telephone number to call to claim a \$250 reward. Main photo by Dr. Michael Dance, Louisiana State University

Changes to Gulf of Mexico Greater Amberjack Management

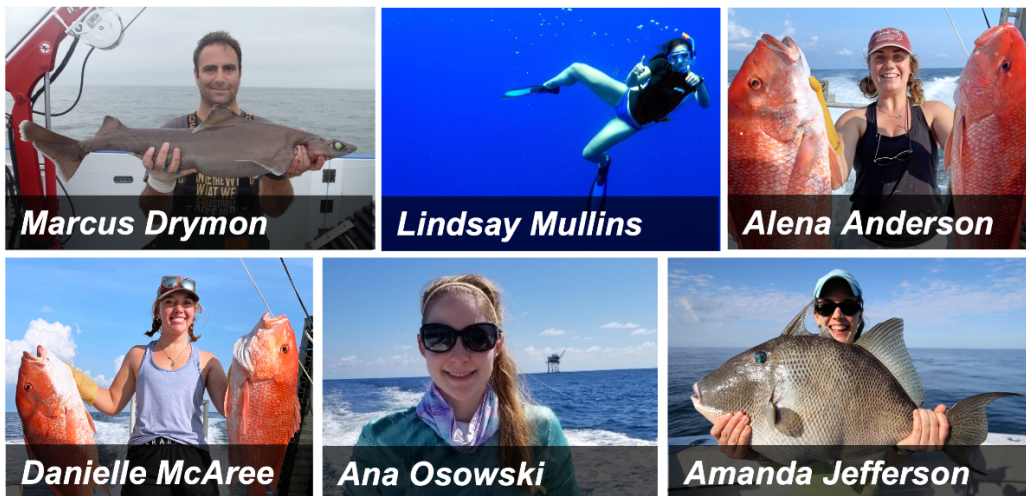
The Gulf of Mexico greater amberjack stock is managed through sector allocations. The commercial sector receives 27% of the annual catch limit allocation, while the recreational sector receives 73%. At this point, reductions in both commercial and recreational harvest are necessary to rebuild the stock by 2027 (the rebuilding deadline). Therefore, fisheries managers are implementing a combination of immediate and long-term changes. If you fish for greater amberjack in the Gulf of Mexico, please be aware of the following information.

1. NOAA Fisheries recently modified the recreational fixed closed season to include the month of August, just for the present recreational fishing “year” (which runs from August 1, 2022 – July 31, 2023), so that fishing

will only be open to the recreational sector in September and October (this month and next month). This is necessary to avoid drastically reducing, or even potentially closing, next year's recreational season.

2. Meanwhile, the Gulf of Mexico Fishery Management Council is developing a long-term plan to end overfishing and let the stock increase in size through Reef Fish Amendment 54, which will be implemented in 2023.

For more details about these changes, check out this [video](#) from the Gulf of Mexico Fishery Management Council.



I'm Marcus Drymon, an Assistant Extension Professor at Mississippi State University and a Marine Fisheries Specialist at Mississippi-Alabama Sea Grant. Lindsay Mullins, Alena Anderson, Danielle McAree, Ana Osowski, Amanda Jefferson, and I are the Marine Fisheries Ecology Lab. We'd love to hear from you! Please reach out to us at marinefisheriesecology@gmail.com



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