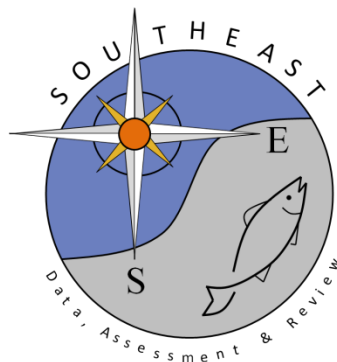


Social Dimensions of Gray Triggerfish (*Balistis capriscus*) in the Gulf and South Atlantic

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Social Dimensions of Gray Triggerfish (*Balistis capriscus*) in the Gulf and South Atlantic

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Abstract

Gray Triggerfish (*Balistis capriscus*) arose from the status of “trash fish” in the early 1980s to become a highly sought-after species among fishermen who have had the opportunity to enjoy catch, land, and sell or eat this fish. In some areas where it is plentiful, such as in the waters off of Florida’s panhandle, people will travel thirty to forty miles when the season opens in August to catch triggerfish from a charter boat or headboat. It has always been more heavily targeted by the recreational fishing community than the commercial fishing fleets, but commercial fishermen who catch them while fishing for other deepwater, reef-dwelling species tend to be pleased that fish dealers need not deduct a lease prices from their dockside value. Recognizing the heavier recreational catch, Annual Catch Limits (ACLs) in both the Gulf and South Atlantic have been set higher for the recreational sector than the commercial sector, although the difference between the ACLs in the Gulf is much higher than in the South Atlantic. After suffering losses of certain age classes around 2010, believed by some to be the result of the BP Deepwater Horizon oil spill, new ACL limits were implemented in 2012 and have managed to rebuild the stock to the point that many fishermen now believe that 14” fish—fish, that is, that are one inch short of the 15” size limit—are so thick in some places that regulatory discards outnumber keeper fish by up to 15 to 20 to one. In light of this, many charter boat and headboat captains, particularly those fishing off of Destin (known as the Charter Boat Capital of the United States), would like to see either the current recreational bag limit of 1/ person/ trip increased or the size limit reduced from 15” to 14”.

Introduction

In the early 1980s, Gray triggerfish was considered an underutilized species by the National Marine Fisheries Service, included in a list of species that researchers targeted to promote among recreational fishermen (Johnson and Griffith 1985). For that study, most Florida anglers asked to sort fish into groups based on similarity placed triggerfish in the same class of fish with schoolmaster snapper, gag grouper, tripletail, mutton snapper, and gray snapper—all of which they considered either difficult to clean, poor fighters, or unfamiliar. With the exception of mutton snapper, they also perceived these species as occupying the same deepwater habitats. For triggerfish, most anglers cited its difficulty to clean as the principal reason for its being underutilized, although many acknowledged that they were good to eat and that charter boat captains had been touting them for some time as a desirable catch. Fishermen interviewed for the present report compared the skin of triggerfish to “leather” or “armor,” but also noted that they have become skilled at cleaning it a number of different ways. A brochure about triggerfish, produced in the mid-1980s based on the underutilized species study, described how to clean the fish easily to increase its value among recreational fishermen (Murray, Griffith, and Johnson 1985).

Eventually, the drawbacks of cleaning triggerfish were outweighed by its positive characteristics as a high-quality, high-value seafood, selling as high as \$26.99/ pound in retail markets and for far more than that as an entrée in a restaurant. Today, triggerfish are considered a valuable species by commercial and recreational fishermen as well others involved in the fishery as dealers, restaurateurs, and retail seafood store owners. Dealers interviewed for this report said that they rarely have to ship triggerfish because they sell out from within a few miles of wherever they are landed commercially.

As recently as 2012, concern over the health of the stock led to an interim rule for gray triggerfish that reduced the recreational ACL from 457,000 pounds ww to 214,200 pounds ww and the commercial catch from 138,000 pounds ww to 64,100 pounds ww in the Gulf; the South Atlantic ACLs are both in the 300,000 lbs ww range. At that time, the stock was considered to be overfished and experiencing overfishing; the reduced catch limits were designed to rebuild the stock. Some fishermen interviewed for this report believed that the BP oil spill was more responsible for the decline of key age classes than fishing pressure.

Even with the reduced ACLs, few fishermen could remember a year recently that the fishery was closed from reaching the limit. At least in the Gulf, the recreational sector tends to catch far more triggerfish than the commercial sector, taking upwards of 80% of the total catch. The commercial catches in the South Atlantic remain steady yet still less than fisheries have been allocated. Although the days triggerfish were considered an underutilized species are long gone, the fishery does not seem to suffer from high fishing pressure.

Management History

Triggerfish have been managed under the Reef Fish FMP since 1984 but have experienced significant management activity since the initial restrictions of a 12” minimum size limit and a recreational bag limit of 20 fish. Today, the size limit is 15” and the recreational bag limit is 1 fish per person per trip. In 2006, SEDAR 9 included Gray Triggerfish with Greater Amberjack and Vermillion Snapper; that assessment set the recreational ACT for triggerfish at 306,000 and the ACL at 394,000 and the commercial ACT at 80,000. These limits rose over the next few years, until the 2012 restrictions noted above were imposed and remained in effect until 2021, when the limits were raised as a result of another assessment that

suggested the stock were no longer overfished or experiencing overfishing. Current recreational ACT is 274,323 and ACL is 360,951 and commercial ACT is 88,273 and ACL is 95,949. The recreational sector continues to dominate the fishery.

Triggerfish are closed to recreational fishing during January and February and again during June and July, when triggerfish spawn, making August often a busy month for landing triggerfish. Some charter and headboat operations post on their websites that triggerfish season is opening August 1, even though the recreational season is open eight months out of the year. The commercial fishery has a ten-month season, closed only from June 1 to July 31.

In the South Atlantic, restrictions on fishing for triggerfish began in 1983, when the FMP designated Special Management Zones and restricted the use of explosives, poisons, fish traps, and trawls for triggerfish and other reef-dwelling species in the snapper grouper complex (SEDAR 82 2024). Additional amendments to the FMP occurred through the 1990s and into the 21st century until the 2012 Amendment 25 mentioned above, or the comprehensive ACL amendment. This set the commercial ACL for the South Atlantic at 305,262 lbs ww and the recreational ACL at 367,303 lbs ww. Although the recreational ACL is higher than the commercial ACL, the discrepancy is not nearly as large as in the Gulf.

Triggerfish Landings

As noted in the following table, commercial landings of triggerfish have been highest in Florida over the past five years for which we have data and their presence declines one moves farther west in the Gulf.¹ According to one headboat captain interviewed for this report, captains he knows have told him they haven't seen a triggerfish west of Biloxi, MS since the BP oil spill in 2010. Clearly, they are more abundant in Florida, with the northeastern Gulf region, off of the Florida panhandle, being one of the principal places triggerfish are landed.

Table 1: Commercial and Recreational Landings (lbs. ww) of Gray Triggerfish, 2020-2024

| Year/ State | West Florida | Alab-Miss | Louisiana | Texas | East Florida | South Carolina | North Carolina |
|-------------|--------------|-----------|-----------|--------|--------------|----------------|----------------|
| 2020 Comm. | 48,562.3 | 2771.68 | 1027 | 418.92 | 94,543 | 83,982 | 38,424 |
| 2021 Rec. | 144,109 | 26,614 | 240 | 199 | n.a. | n.a. | n.a. |
| 2021 Comm. | 42,676.5 | 1336.84 | 643.92 | 311.88 | 56,600 | 76,339 | 26,544 |
| 2021 Rec. | 56,373 | 9,790 | 326 | 113 | n.a. | n.a. | n.a. |
| 2022 Comm. | 42,853.17 | 1240.92 | 751.08 | 435.44 | 60,719 | 79,219 | 56,208 |
| 2022 Rec. | 125,739 | 33,613 | 213 | 89 | n.a. | n.a. | n.a. |
| 2023 Comm. | 52,326.61 | 1224.68 | 670.32 | 637.2 | 55,632 | 67,443 | 71,131 |
| 2023 Rec. | 97,419 | 27,065 | 717 | 602 | n.a. | n.a. | n.a. |
| 2024 Comm. | 49,749.35 | 493.48 | 611.56 | 749.8 | n.a. | n.a. | n.a. |
| 2024 Rec. | 126,957 | 35,835 | 533 | 99 | | | |

Although Table 1 shows that some triggerfish have been landed west of Biloxi since 2010, as one moves farther west from Florida one is likely to encounter fewer and fewer triggerfish. The Florida panhandle remains the region of the Gulf most likely to experience effects from regulatory changes targeting the species. In the South Atlantic, triggerfish range from Florida's East Coast to North Carolina, with more fish landed farther south than in each of the northern states; in any case, the three states never seem to

reach as much as 80% of their ACL. The year with the highest landings, 2020, reached just over 71% of their commercial ACL.ⁱⁱ

Fishers' Interactions with Triggerfish

Like many species in the Gulf and South Atlantic, triggerfish are a highly valued species but tend not to be specifically targeted by commercial or recreational fishermen, although they do appreciate landing triggerfish when fishing for other deepwater, reef-dwelling species. Both groups tend to be targeting fish in the snapper-grouper complex when they incidentally catch triggerfish, many of which, today, are undersized. Nevertheless, few members of either commercial or recreational fishers would consider triggerfish a trash fish.

The Commercial Fishery

According to one commercial seafood dealer who manages two vessels and buys seafood from two others, fishermen on the vessels she is familiar with rarely “limit out” on triggerfish—that is, they do not land their allowed trip limit. Twenty to 25 pounds of triggerfish, or anywhere from three to six fish, is most common, although she had experienced vessels landing up to 99 pounds. For the year, however, her seafood operation landed under 700 pounds.

Despite their not being targeted, on reason that commercial fishermen appreciate landing triggerfish is that they do not have to pay for to lease quota for the fish. That is, according to one seafood dealer interviewed for this report, when crews land red snapper, for example, they may receive \$7.00 per pound but the dealer has to deduct \$5.00 from that ex-vessel price to cover the cost of the IFQ lease, leaving crews with only \$2.00 per pound. For triggerfish they the dealers pay \$4.50 per pound but deduct nothing from that for leasing, because triggerfish are not covered by an IFQ program. While dockside values for triggerfish are between \$3.00 and \$4.50 per pound, retail values range as high as \$26.00 to \$27.00 per pound and seafood dealers report not having any trouble selling all their triggerfish at those prices.

On the other hand, although some restaurants feature triggerfish as a special dish, most restaurants prefer other species in the snapper-grouper complex to triggerfish because triggerfish tend not to come in sizes that are as easy as, say, red snapper to serve in portions that customers are used to. Some fishermen also reported that red snapper and other species, being a blander white meat than triggerfish, responds to chefs' seasoning skills better. Many reported that triggerfish have a distinctive, superior taste and also said that they preferred it to many other species.

Commercial fishermen tend to catch triggerfish when fishing for grouper-snapper species, usually encountering at depths of 150' or more and using electric reels or diving for them and harvesting them with spears. They tend not to be caught on long-line vessels, but electric reel or dive vessels up to 40' in length. It is not uncommon for commercial fishers working on vessels like these to be part-time, working as charter boat captains for part of the year or holding other shore-side jobs; combining fishing with other sources of income is common even among full-time fishermen. Recruiting and retaining reliable crew has become a challenge for many commercial fisheries, particularly those that spend days and weeks at sea, often leading to attempts to hire foreign workers with temporary (H-2B) visas. This has been the case in parts of the fleet that land triggerfish, constraining fishing effort.

As noted earlier, many people interviewed for this report believed that the BP oil spill in 2010 had a severe negative effect on the triggerfish fishery, being at least partially responsible for NOAA implementing emergency ACLs in 2012. In the commercial fishery, the spill caused additional problems for seafood dealers and retailers. First, many consumers believed that all Gulf seafood became inedible because of the oil. “The spill for us was more social,” one seafood dealer mentioned. “The environmental effects weren’t bad where our fishermen fish, but word spread that all Gulf seafood was tainted.”

Second, BP paid fishermen to participate in the clean-up and compensated many for lost wages and other problems caused by the spill, reducing the number of fishermen going to sea. Landings of many types of fish, including triggerfish, fell; in the minds of many fishermen and seafood dealers, this may have made it seem to fisheries biology as though the stocks suffered worse than they actually did. “They didn’t have a need to fish because they got big checks and then just spent them at the bars, bought cars, etc. and didn’t come back to work until the money ran out,” a seafood dealer said.

The Recreational Fishery

As noted earlier, the recreational sector is disproportionately responsible for triggerfish landings in the Gulf and somewhat more likely to land triggerfish than commercial fishers in the South Atlantic. Charter boat and headboat operations interviewed for this report noted that their customers value triggerfish nearly as much or more than the snapper-grouper species they may be targeting, but that they tend to catch several undersized triggerfish prior to landing one that is 15” or longer and legal to keep. One headboat captain reported that, on a recent trip, he and his clients caught 17 to 18 undersized fish for each one that reached the 15” limit. He explained the abundance of undersized fish with the belief that triggerfish mature rather rapidly to around 14”, but then their growth rate slows between 14” and 15”. Others reported catching triggerfish “as large as a manhole cover,” or 20’ to 24” in length.

Despite high numbers of regulatory discards, few fishermen believed that these discards were resulting in high triggerfish mortality. They said that venting triggerfish, which is common on headboats and charter boats, prevents severe or catastrophic barotrauma. They also mentioned that triggerfish tend to be a hardy fish overall, and that even those that are not vented, unless pulled from over 30 fathoms, will survive barotrauma.

Recreational fishermen prefer the species principally because it is one of the premier eating fish in the ocean today; one fishermen interviewed also mentioned that Gulf and South Atlantic triggerfish do not have high levels of mercury or other contaminants that come from feeding on coral reefs. As they tend to be a top predator, if that were the case, they would bioaccumulate those toxins. The fact that triggerfish are a top predator—considered “the piranha of the Gulf” by some—concerns those fishermen who encounter hundreds of 14” triggerfish each year and have to discard them. One lamented, “No one knows how fish that voracious will affect the ecosystem.”

In any case, they have become far more popular in the past few years, and fishermen reported that they are particularly highly prized in the Western Gulf, which doesn’t have the biodiversity of the Eastern Gulf. Fishermen reported that the January-February closure was designed to prevent Eastern Gulf fishermen from landing the triggerfish ACL before Western fishermen have a chance to fish for them, noting that recreational fishermen in the Western Gulf tend to begin their fishing season later in the year. As noted earlier and indicated by the landings data, triggerfish seem far less abundant in the western Gulf

than further east, which some believed were a result of the 2010 BP Deepwater Horizon oil spill. Nevertheless, few fishermen interviewed indicated that there was a problem with the triggerfish stock.

The current state of the gray triggerfish stock, according to fishermen

“It was like letting wild hogs loose in the cities,” one fisherman said of the 2012 ruling that reduced the ACL for triggerfish. “There were blankets of triggerfish over all the reefs.” These comments were made in reference to the triggerfish population offshore from the Florida Panhandle, where the species has become a regional favorite. However, others in other regions also reported that the triggerfish stock was healthy and thriving, saying things like, “You are never going to run out of triggerfish.” During the seasonal closure they have become a nuisance to fishermen targeting Vermillion snapper and other reef species, when fishermen say that they have to “feed the triggerfish until they get their full” before they can land other species from the reef. Those who have underwater viewing capability can see how thick they are on their screens.

Part of the viability of the stock, according to fishermen, relates to their hardiness and reflects their tough skin. Their tough skin and strong dorsal fin make them less susceptible to predation than other reef-dwelling species; the fact that they are territorial, nesting in one place and viscously guarding their nests, has made them less susceptible to storms and other phenomena that affect ocean substrates. One fisherman said that, after Hurricane Sally in 2020, the storm blew a number of species around the Gulf, but that the triggerfish stayed put; for months afterward, that was practically all they were catching from the artificial reefs.

References

Johnson, Jeffrey and David Griffith 1985. Perceptions and Preferences for Marine Fish: A study of recreational fishermen in the Southeast. Raleigh, NC: UNC Sea Grant UNC-SG-85-01.

Murray, James, David Griffith, and Jeffrey Johnson. 1985. The Snow White Challenge: Triggerfish. (Brochure). Raleigh, NC: UNC-SG-85-12.

ⁱ More detailed commercial and recreational landings data are provided in other working papers accompanying the SEDAR 100 data workshop documents; here we are primarily interested in determining where triggerfish landings are most likely to affect human communities.

ⁱⁱ No recreational data were provided for this report for the South Atlantic.