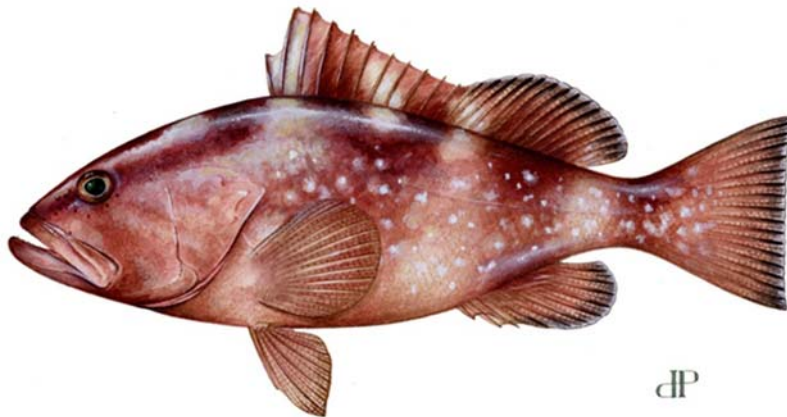


Modification of Gulf of Mexico Red Grouper Annual Catch Limits and Annual Catch Targets



Framework Action to the Fishery Management Plan for Reef Fish Resources of the Gulf of Mexico

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ENVIRONMENTAL ASSESSMENT COVER SHEET

Name of Action

Framework Action to the Fishery Management Plan for Reef Fish Resources in the Gulf of Mexico: Modification of Gulf of Mexico Red Grouper Annual Catch Limits and Annual Catch Targets including Environmental Assessment, Regulatory Impact Review, and Regulatory Flexibility Act Analysis.

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Type of Action

Administrative
 Draft

Legislative
 Final

ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
ALS	accumulated landings system
AM	accountability measure
APAIS	Access Point Angler Intercept Survey
Bi Op	Biological Opinion
CMP	coastal migratory pelagic
Council	Gulf of Mexico Fishery Management Council
CS	Consumer Surplus
DPS	Distinct Population Segment
EEZ	Exclusive Economic Zone
EFH	Essential Fish Habitat
EFP	Exempted Fishing Permits
EIS	Environmental Impact Statement
EJ	Environmental Justice
EO	Executive Order
ESA	Endangered Species Act
F	Fishing Mortality Rate
FMP	Fishery Management Plan
FL	Fork Length
FWC	Florida Fish and Wildlife Conservation Commission
GMFMC	Gulf of Mexico Fishery Management Council
GPS	global positioning system
GSAD	Gulf and South Atlantic Dealer
Gulf	Gulf of Mexico
gw	gutted weight
HAPC	Habitat Areas of Particular Concern
IFQ	Individual Fishing Quota
IPCC	Intergovernmental Panel on Climate Change
LAPPs	Limited Access Privilege Programs
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
MFMT	Maximum Fishing Mortality Threshold
MMPA	Marine Mammal Protection Act
mp	million pounds
MRFSS	Marine Recreational Fisheries Statistics Survey
MRIP	Marine Recreational Information Program
MSST	Minimum Stock Size Threshold
NMFS	National Marine Fisheries Service
NOR	Net Operating Revenue
NPDV	net present discounted value
OFL	overfishing limit
OY	Optimum Yield
PAH	Polycyclic Aromatic Hydrocarbons

PS	Producer Surplus
RFA	Regulatory Flexibility Act
RFFA	Reasonably Foreseeable Future Actions
RIR	Regulatory Impact Review
RQ	Regional Quotient
RS	red snapper
SEDAR	Southeast Data, Assessment, and Review process
SEFSC	Southeast Fisheries Science Center
SERO	NMFS Southeast Regional Office
SPR	Spawning Potential Ratio
SOI	Segment of Interest
SRHS	Southeast Region Headboat survey
SSB	Spawning Stock Biomass
SSC	Scientific and Statistical Committee
SSRG	Social Science Research Group
TAC	Total Allowable Catch
TL	total length
TPWD	Texas Parks and Wildlife Department
USFWS	United States Fish and Wildlife Service
ww	whole weight

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CHAPTER 1. INTRODUCTION

1.1 Background

The stock status of Gulf of Mexico (Gulf) red grouper was last evaluated in the Southeast Data Assessment Review 42 stock assessment (SEDAR 42, 2015). The Gulf of Mexico Fishery Management Council's (Council) Scientific and Statistical Committee (SSC) reviewed the assessment results at its January 2016 meeting, agreed with the determination that red grouper were not overfished or experiencing overfishing, and recommended increases in the overfishing limit (OFL) and the acceptable biological catch (ABC). The Council selected a constant catch yield stream (Table 1.1.1) for determining annual catch limits (ACLs) and annual catch targets (ACTs).

Table 1.1.1. SEDAR 42 yield projections for red grouper at a constant catch level, averaged over the 2016-2020 time series. OFL and ABC values are in millions of pounds (mp) gutted weight (gw).

Year	OFL (mp gw)	ABC (mp gw)
2015	8.10	7.93
2016-2020(+)	14.16	13.92

The OFL and ABC recommendations from the 2015 stock assessment were increases that exceeded observed harvest levels over the management history of this species (Table 1.1.2), and were largely driven by increases in estimates of historical discards. The increase in discard estimates effectively increased the estimate of stock productivity, leading to lower mortality estimates for a given harvest level. The projected yields from SEDAR 42 assumed recruitment levels equivalent to the long-term average; however, red grouper recruitment spikes are sporadic, and annual recruitment is generally lower than that suggested by the long-term average (SEDAR 42 2015, NMFS 2018a).

Current Management and Landings

The allocation between the commercial and recreational sector is 76% and 24%, respectively. For the commercial sector, red grouper harvest is managed under an individual fishing quota (IFQ) program with an 18-inch total length (TL) minimum size limit. Under an IFQ program, allocation is annually distributed on January 1 to IFQ shareholders with red grouper shares. The amount of allocation distributed is based on the quota and percentage of shares possessed by an entity. For more information on the IFQ program, see the National Marine Fisheries Service's (NMFS) Southeast Regional Office (SERO) webpage on limited access programs at <http://portal.southeast.fisheries.noaa.gov/cs/main.html>.

For the recreational sector, red grouper harvest is managed with season/area closures, a minimum size limit, and a bag limit. During the months of February and March, the possession

of red grouper caught in waters deeper than 20 fathoms (120 feet) is prohibited. This closure is to protect red grouper and other grouper species that are in spawning condition. Red grouper have a 20-inch TL recreational minimum size limit and are a part of the four-grouper aggregate bag limit. However, only two of the fish in the aggregate bag limit can be red grouper.

Total landings of red grouper have ranged from 3.7 to 9.2 million pounds (mp) gutted weight (gw) between 2001 and 2017 (Table 1.1.2). The lowest landings (3.7 mp gw) occurred in 2010 and likely were associated with the *Deepwater Horizon* oil spill. The highest amount of landings in this series were in 2004 at approximately 9.2 mp gw. In general, annual landings have been between 5 and 7 mp gw. Gutted weight of red grouper can be converted to whole weight by multiplying the gutted weight by 1.05 (SEDAR 42 2015).

Table 1.1.2. Red grouper landings for the recreational and commercial sectors in pounds gutted weight (gw) for the years 2001 through 2017.

Year	Recreational Sector	Commercial Sector	Overall Total
2001	1,562,768	5,802,442	7,365,210
2002	1,856,389	5,791,795	7,648,184
2003	1,337,719	4,832,294	6,170,013
2004	3,531,970	5,635,577	9,167,547
2005	1,471,283	5,380,603	6,851,886
2006	1,153,940	5,109,824	6,263,764
2007	1,038,837	3,650,777	4,689,614
2008	864,311	4,748,224	5,612,535
2009	830,746	3,698,227	4,528,973
2010	795,106	2,910,970	3,706,076
2011	603,662	4,783,668	5,387,330
2012	1,614,456	5,219,133	6,833,589
2013	2,571,531	4,599,001	7,170,532
2014	1,664,934	5,601,905	7,266,839
2015	1,926,641	4,798,007	6,724,648
2016	1,405,252	4,497,582	5,902,834
2017	828,292	3,328,271	4,156,563

Source: SERO ACL and Catch Share Programs databases (recreational: MRIP; commercial: ALS) as of November 14, 2018.

Southeast Fisheries Science Center (SEFSC) Interim Analysis, SSC ACL Recommendation, and Public testimony at the October 2018 Council Meeting

A stock assessment for Gulf red grouper is in progress (SEDAR 61) but will not be completed until mid-2019. There is some concern about the health of the stock. The SEFSC conducted an interim analysis to assist the Council in developing harvest advice for 2019 (NMFS 2018a). The interim analysis uses a harvest control rule (HCR) to adjust the catch advice based on an index of

relative abundance. Specifically, the HCR compares where the stock seems to be now (observed index value) with where the stock should be (forecasted index value). The chosen HCR adjusts the ABC recommendation based on variation between projected and observed index values. The SEFSC recommended the fishery independent bottom longline (BLL) index for use in the HCR because of its widespread spatial coverage, consistent sampling design, and prevalence of red grouper in the survey.

The SEFSC interim analysis set the 2018 and 2019 ABC advice equal to the ABC in 2017. Because the interim analysis required assumptions, the interim analysis explored different scenarios of: 1) the variation between the projected and observed index; and 2) including and excluding the SEDAR 42 (2015) projection scenarios. The SSC favored the scenario that did not use the SEDAR 42 ABC projections and used a variation adjustment in which the interim catch advice was strongly driven by the NMFS BLL index deviations. The SSC considered this scenario to be realistic and conservative (with respect to the risk of overfishing) for the interim management advice as requested by the Council. The SSC did note they had concerns with selecting the adjustment factor as well as being limited to the NMFS BLL index.

The SSC concluded that the SEFSC's interim analysis was suitable for interim catch advice for the Council. However, the interim analysis has not been fully tested and assumptions had to be made regarding use of SEDAR 42 ABC projections, the choice of HCR, and the adjustment value. Thus, the SSC considered this method inappropriate to provide an ABC determination, because that would require the Council to adjust the ACL. However, the SSC found the analysis was sufficient to recommend an interim 2019 ACL of 4.6 mp gw. This recommendation from the SSC is not binding because it is for the ACL, and the setting of the ACL falls under the Council's purview. The Council may choose to set an ACL that is less than or equal to the ABC.

In 2017, landings were the second lowest in the time series presented in Table 1.1.3 at just over 4.1 mp gw. Some fishermen testified to the Council in 2018 that red grouper are harder to catch and they thought the current ABC of 13.92 mp gw is too high. They expressed concern the stock condition may be declining in light of an apparent lack of legal-size and larger individuals throughout the species' range on the West Florida shelf. In addition, the severe red tide conditions that occurred in summer and fall 2018 off the Florida west coast could have adversely affected the red grouper stock^{1;2}. A similar 2005 red tide event was shown to have depressed the red grouper spawning stock biomass in the SEDAR 12 update assessment (2009) and in SEDAR 42 (2015). It is not clear whether the red tide has affected the red grouper stock in 2018 or why harvests have been reduced in recent years, the SEDAR 61 red grouper stock assessment³ is presently underway and expected to be presented to the Council's SSC in July 2019. Stakeholder observations indicate that the 2018 red tide event may have had a negative impact on red grouper, as documented in the 2018 "Something's Fishy with Red Grouper Survey" conducted by the Council and presented during SEDAR 61.

¹ Florida Fish and Wildlife Conservation Red Tide Webpage: <http://myfwc.com/research/redtide/>

² Red Tide in Florida and Texas, National Ocean Service Webpage: <https://oceanservice.noaa.gov/news/redtide-florida/>

³ SEDAR 61 Gulf of Mexico Red Grouper: <http://sedarweb.org/sedar-61>

Given all of this information, the Council requested staff to draft a framework action to adjust the red grouper total ACL. However, because the framework action cannot be completed until sometime in 2019, the Council also requested that the NMFS implement an interim or emergency rule to establish a red grouper total allowable catch of 4.6 mp gw or the 2017 total (commercial and recreational) landings, whichever is lower. NMFS is currently developing an emergency rule to set the 2019 sector ACLs and associated ACTs based on a stock ACL of 4.16 mp gw.

Based on the Council request, NMFS withheld distribution of the amount of IFQ allocation equal to the amount of anticipated reduction of the commercial quota. This was authorized under 50 CFR § 622.22(a)(4). However, if the rule implementing this reduction is not effective by June 1, 2019, NMFS must distribute the withheld IFQ allocation to the shareholders.

1.2 Purpose and Need

The purpose is to modify the ACLs and ACTs for Gulf red grouper in response to the commercial and recreational landings being well below their respective ACLs, and in consideration of the interim analysis performed on Gulf red grouper.

The need is to revise ACLs and ACTs consistent with the best available science for Gulf red grouper, and to continue to achieve optimum yield (OY) consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act).

1.3 History of Management

The following summary describes management actions that affect the management of red grouper in the Reef Fish Fishery Management Plan (FMP). More information on the Reef Fish FMP can be obtained from the Council at http://www.gulfcouncil.org/fishery_management_plans/index.php.

Amendments to the Reef Fish FMP

Amendment 1, implemented in 1990:

- Set a 20-inch total length (TL) minimum size limit on red grouper;
- Set a five-grouper recreational daily bag limit;
- Set an 11.0 mp commercial quota for grouper, with the commercial quota divided into a 9.2 mp shallow-water grouper quota and a 1.8 mp deep-water grouper quota. Shallow-water grouper were defined as black grouper, gag, red grouper, Nassau grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, speckled hind, and scamp;
- Allowed a two-day possession limit for charter vessels and headboats on trips that extend beyond 24 hours, provided the vessel has two licensed operators aboard as required by the U.S. Coast Guard, and each passenger can provide a receipt to verify the length of the trip. Other fishermen fishing under a bag limit were limited to a single day limit;

- Established a longline and buoy gear boundary at the 50-fathom depth contour west of Cape San Blas, Florida, and the 20-fathom depth contour east of Cape San Blas, inshore of which the directed harvest of reef fish with longlines and buoy gear was prohibited, and the retention of reef fish captured incidentally in other longline operations (e.g., sharks) was limited to the recreational daily bag limit;
- Limited trawl vessels to the recreational size and daily bag limits of reef fish;
- Established fish trap permits, allowing a maximum of 100 fish traps per permit holder;
- Prohibited the use of entangling nets for directed harvest of reef fish. Retention of reef fish caught in entangling nets for other fisheries was limited to the recreational daily bag limit;
- Established the fishing year to be January 1 through December 31;
- Established a commercial reef fish vessel permit.

Generic Sustainable Fisheries Act Amendment was partially approved and implemented in November 1999. This amendment set the MFMT for most reef fish stocks at a fishing mortality rate corresponding to 30% spawning potential ratio ($F_{30\% SPR}$).

Secretarial Amendment 1, implemented July 15, 2004 [69 FR 33315]:

- Established a rebuilding plan with a 5.31 mp gw commercial quota, and a 1.25 mp gw recreational target catch level for red grouper;
- Reduced the commercial quota for shallow-water grouper from 9.35 to 8.80 mp gw and reduced the commercial quota for deep-water grouper from 1.35 to 1.02 mp gw;
- Reduced the red grouper recreational bag limit to two fish per person per day.

Amendment 18A, implemented on September 8, 2006:

- Prohibited vessels from retaining reef fish caught under recreational bag/possession limits when commercial quantities of Gulf reef fish are aboard;
- Adjusted the maximum crew size on charter vessels that also have a commercial reef fish permit and a USCG certificate of inspection (COI) to allow the minimum crew size specified by the COI when the vessel is fishing commercially for more than 12 hours;
- Prohibited the use of reef fish for bait except for sand perch or dwarf sand perch;
- Required devices for the safe release of endangered sea turtles and smalltooth sawfish;
- Changed the permit application process to an annual procedure and simplifies income qualification documentation requirements; and
- Required electronic VMS aboard vessels with federal reef fish permits, including vessels with both commercial and charter vessel permits (implemented May 6, 2007).

Amendment 19, also known as Generic Essential Fish Habitat Amendment 2, was implemented on August 19, 2002. This amendment established two marine reserves off the Dry Tortugas where fishing for any species and anchoring by fishing vessels is prohibited.

Amendment 21 was implemented in July 2003, and continued the Steamboat Lumps and Madison-Swanson reserves for an additional six years, until June 2010.

Amendment 27 was implemented on February 28, 2008, addressed the use of non-stainless steel circle hooks when using natural baits to fish for Gulf reef fish, and required the use of venting

tools and dehooking devices when participating in the commercial or recreational reef fish fisheries, effective June 1, 2008.

Amendment 29, implemented January 1, 2010, established an IFQ system for the commercial grouper and tilefish fisheries.

Amendment 30B, implemented May 2009:

- Set interim allocations of red grouper between recreational and commercial fisheries;
- Made adjustments to the red grouper TACs;
- Established ACLs and AMs for the commercial and recreational red grouper fisheries, and the commercial aggregate shallow-water grouper fishery;
- Adjusted recreational grouper bag limits and seasons;
- Adjusted commercial grouper quotas;
- Reduced the red grouper commercial minimum size limit;
- Replaced the one month commercial grouper closed season with a four-month seasonal area closure at the Edges;
- Eliminated the end date for Madison-Swanson and Steamboat Lumps; and
- Required that vessels with a federal charter vessel/headboat permit for Gulf reef fish must comply with the more restrictive of state or federal reef fish regulations when fishing in state waters.

Amendment 31, implemented May 26, 2010:

- Prohibited the use of bottom longline gear shoreward of a line approximating the 35-fathom contour from June through August;
- Reduced the number of longline vessels operating in the fishery through an endorsement provided only to vessel permits with a history of landings, on average of at least 40,000 lbs of reef fish annually with fish traps or longline gear during 1999-2007; and
- Restricted the total number of hooks that may be possessed onboard each reef fish bottom longline vessel to 1,000, only 750 of which may be rigged for fishing.

Generic ACL/AM Amendment, established in-season and post-season AMs for all stocks that did not already have such measures defined. The AM states that if an ACL is exceeded, in subsequent years an in-season AM will be implemented that will close all shallow-water grouper fishing when the ACL is reached or projected to be reached.

Amendment 32, implemented March 12, 2012:

- Set the red grouper commercial ACL at 6.03 mp and the recreational ACL at 1.90 mp;
- Modified grouper IFQ multi-use allocations;
- Added an overage adjustment and in-season measures to the red grouper recreational AMs to avoid exceeding the ACL; and
- Added an AM for the red grouper bag limit that would reduce the four red grouper bag limit in the future to three red grouper, and then to two red grouper, if the red grouper recreational ACL is exceeded.

Amendment 38, implemented March 1, 2013:

- Revised the post-season recreational AM to reduce the recreational season of only the species for which the ACL was exceeded; and
- Modified the reef fish framework procedure to include the addition of AMs to the list of items that can be changed through the standard framework procedure.

Regulatory Amendments, Emergency and Interim Rules

A July 1991 regulatory amendment, implemented November 12, 1991, provided a one-time increase in the 1991 quota for shallow-water grouper from 9.2 mp to 9.9 mp to provide the commercial fishery an opportunity to harvest 0.7 mp that was not harvested in 1990.

A November 1991 regulatory amendment, implemented June 22, 1992, raised the 1992 commercial quota for shallow-water grouper to 9.8 mp after a red grouper stock assessment indicated that the red grouper SPR was well above the Council's minimum target of 20%.

An August 1999 regulatory amendment, implemented June 19, 2000:

- Prohibited commercial sale of red grouper each year from February 15 to March 15 (during the peak of gag spawning season); and
- Established two marine reserves (Steamboat Lumps and Madison-Swanson) that are closed year-round to fishing for all species under the Council's jurisdiction.

An emergency rule, published February 15, 2005, established a series of trip limit reductions for the commercial grouper fishery in order to extend the commercial fishing season. The trip limit was initially set at 10,000 lbs gw. By August 1, if the fishery had landed more than 50% of either the shallow-water or red grouper quotas, then a 7,500-lb gw trip limit would take effect; and if by October 1, if the fishery had landed more than 75% of either the shallow-water or red grouper quotas, then a 5,500-lb gw trip limit would take effect.

An interim rule, published July 25, 2005, established a temporary reduction in the red grouper recreational bag limit from two to one fish per person per day. The approved measure was subsequently extended through July 22, 2006 [71 FR 3018].

An October 2005 regulatory amendment, implemented January 1, 2006, established a 6,000-pound gw aggregate deep-water grouper and shallow-water grouper trip limit for the commercial grouper sector.

A March 2006 regulatory amendment, implemented July 15, 2006, established:

- A red grouper recreational bag limit of one fish per person per day as part of the five grouper per person aggregate bag limit, and prohibited for-hire vessel captains and crews from retaining bag limits of any grouper while under charter [71 FR 34534]; and
- Established an annual recreational closed season for red grouper from February 15 to March 15, beginning with the 2007 season.

An emergency rule was implemented May 18, 2009, through October 28, 2009, prohibiting the use of bottom longline gear to harvest reef fish east of 85°30' W longitude shoreward of the 50-fathom (91.4-m) contour as long as the 2009 deep-water grouper and tilefish quotas are unfilled.

After the quotas have been filled, the use of bottom longline gear to harvest reef fish in water of all depths east of 85°30' W longitude was prohibited [74 FR 20229].

An interim rule was published on December 1, 2010, suspending the use of red grouper multi-use IFQ allocation so it could not be used to harvest gag [75 FR 74654]; and continuing the suspension of red grouper multi-use IFQ allocation from June 1, 2011, through November 27, 2011 [76 FR 31874], and subsequently extended through June 12, 2012 [76 FR 69136].

A rule under the Endangered Species Act was implemented October 16, 2009 that prohibited bottom longlining for Gulf reef fish east of 85°30'W longitude (near Cape San Blas, Florida) shoreward of a line approximating the 35-fathom depth contour. It restricted the number of hooks on board to 1,000 hooks per vessel with no more than 750 hooks being fished or rigged for fishing at any given time. [74 FR 53889].

An emergency rule, implemented on May 2, 2010, temporarily closed a portion of the Gulf EEZ to all fishing [75 FR 24822] in response to the *Deepwater Horizon* oil spill. The initial closed area extended from approximately the mouth of the Mississippi River to south of Pensacola, Florida and covered an area of 6,817 square statute miles. The coordinates of the closed area were subsequently modified periodically in response to changes in the size and location of the area affected by the spill. At its largest size on June 1, 2010, the closed area covered 88,522 square statute miles, or approximately 37 percent of the Gulf EEZ. The size of the closed area was subsequently reduced in stages, and on April 19, 2011, all remaining waters that had been closed were reopened.

An August 2010 regulatory amendment, implemented January 1, 2011, reduced TAC for red grouper from 7.57 mp gw to 5.68 mp gw, based on the projections from the 2009 red grouper update assessment. Based on the 76%:34% commercial and recreational allocation of red grouper, the commercial quota was reduced from 5.75 to 4.32 mp gw, and the recreational allocation was reduced from 1.82 to 1.36 mp gw.

An August 2011 regulatory amendment, implemented November 2, 2011:

- Increased the 2011 red grouper TAC to 6.88 mp gw with subsequent increases each year from 2012 to 2015; and
- Increased the red grouper bag limit to four fish per person.

A December 2012 framework action, implemented July 5, 2013, eliminated the February 1 through March 31 recreational shallow-water grouper closed season shoreward of 20 fathoms (except for gag). However, the closed season remains in effect beyond 20 fathoms to protect spawning aggregations of gag and other species that spawn offshore during that time.

A December 2014 framework action, implemented May 7, 2015, reduced the red grouper bag limit from four fish to two fish per person per day and eliminated the bag limit reduction AM in 50 CFR 622.41(e)(2)(ii).

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1 – Modify the Gulf of Mexico (Gulf) Red Grouper Annual Catch Limits (ACL) and Annual Catch Targets (ACT)

Alternative 1: No Action. The red grouper ACLs and ACTs will remain at 2016 levels, as shown in the table below.

Year	OFL	ABC	Total ACL	Comm ACL	Rec ACL	Comm ACT/Quota	Rec ACT
2016+	14.16	13.92	10.77	8.19	2.58	7.78	2.38

* Values are in millions of pounds, gutted weight.

Alternative 2: Modify the red grouper ACLs and ACTs based on the recommendation of the Scientific and Statistical Committee (SSC), as determined from the interim analysis provided by the Southeast Fisheries Science Center. Allocations and the recreational ACT are applied as appropriate.

Year	OFL	ABC	Total ACL	Comm ACL	Rec ACL	Comm ACT/Quota	Rec ACT
2019+	14.16	13.92	4.600	3.496	1.104	3.321	1.016

* Values are in millions of pounds, gutted weight.

Alternative 3: Modify the red grouper ACLs and ACTs based on the combined landings from the 2017 fishing season. Allocations and the recreational ACT are applied as appropriate.

Year	OFL	ABC	Total ACL	Comm ACL	Rec ACL	Comm ACT/Quota	Rec ACT
2019+	14.16	13.92	4.154	3.157	0.997	2.999	0.917

* Values are in millions of pounds, gutted weight.

Discussion:

Action 1 proposes modifying the catch levels for 2019 and subsequent years for Gulf of Mexico (Gulf) red grouper. Red grouper landings in the Gulf have been below the current combined recreational and commercial annual catch limit (ACL) of 10.77 million pounds (mp) gutted weight (gw) established following the SEDAR 42 (2015) stock assessment since 2001, suggesting that this ACL (**Alternative 1**) may be too high to be sustained by the stock. Another stock assessment of Gulf red grouper is currently underway (SEDAR 61), and will be completed by the summer of 2019.

The Council's Scientific and Statistical Committee (SSC) reviewed an interim analysis on the disposition of the Gulf red grouper stock at its September 2018 meeting. This analysis was

prepared by the Southeast Fisheries Science Center (SEFSC) to provide updated harvest advice during intervals between stock assessments. The interim analysis used the fishery-independent National Marine Fisheries Service bottom longline (BLL) index as an indicator of the condition of the stock because it was determined to be the best data available for one of the possible harvest control rules (HCR) developed by the SEFSC. The chosen HCR-adjusted acceptable biological catch (ABC) recommendations are based on variation between projected and observed index values, and can be adjusted to be more or less sensitive to the variation by using a scalar.

The SEFSC interim analysis set the 2018 and 2019 ABC advice equal to the ABC in 2017. The interim analyses were conducted with and without SEDAR 42 ABC projections, instead extending the final year ABC values from the previous assessment over the period to 2019. The analyses were adjusted using different sensitivities to the variation between the projected and observed index and with and without the SEDAR 42 ABC. The SSC favored the scenario which did not use the SEDAR 42 ABC, and which instead generated interim catch advice strongly informed by the BLL index. The SSC considered this scenario as realistic and conservative (with respect to the risk of overfishing) for the interim management advice as requested by the Council. The SSC did note it had concerns with selecting the scalar and with being limited to one index (BLL).

The SSC concluded that the interim analysis was informative and suitable for interim catch advice for the Council. Because the methodologies have not been fully tested, and assumptions had been made regarding the use of SEDAR 42 ABC projections, the choice of HCR, and the adjustment value, the SSC considered this method inappropriate to provide an ABC determination since that would require the Council to adjust the ACL. However, the SSC did think the analysis was sufficient to recommend an interim ACL of 4.6 mp gw.

Alternative 1 (No Action) would not modify the catch limits for Gulf red grouper from the status quo. The total ACL will be 10.77 mp gw, split between the recreational and commercial sectors at 2.58 (24%) and 8.19 (76%) mp gw, respectively. These sector-specific ACLs are reduced by 8% (recreational) and 5% (commercial) to reach the annual catch targets (ACTs) of 2.38 and 7.78 mp gw, respectively. The recreational fishing season and the distribution of commercial individual fishing quota (IFQ) allocation are both based on the respective sector ACTs, which were derived through the application of the Council's ACT/ACT Control Rule. The ACL/ACT Control Rule considers the number of times, and the magnitude by which, the ACL has been exceeded in the three years prior to the present fishing year. **Alternative 1** would not address the concerns voiced by stakeholders regarding the disposition of the Gulf red grouper stock.

Alternative 2 would modify the catch limits for Gulf red grouper. The total ACL would be 4.600 mp gw, which is based on the interim analysis reviewed by the SSC. This ACL would be split between the recreational and commercial sectors at 1.104 (24%) and 3.496 (76%) mp gw, respectively. These sector-specific ACLs are reduced by 8% (recreational) and 5% (commercial) to reach the ACTs of 1.016 and 3.321 mp gw, respectively. The recreational fishing season and the distribution of commercial IFQ allocation would both be adjusted based on the respective sector ACTs. **Alternative 2** would amount to a reduction in the stock ACL from **Alternative 1** of approximately 57.3%, and is lower than the combined sector landings for red grouper for

every year since 2001, with the exception of 2009, 2010 (area closures due to the *Deepwater Horizon* oil spill), and 2017 (Table 1.1.3).

Alternative 3 would modify the catch limits for Gulf red grouper. The total ACL would be 4.154 mp gw, which is based on the reported landings from the 2017 fishing year (Table 1.1.2). This ACL would be lower than that proposed in **Alternative 2**, and would be split between the recreational and commercial sectors at 0.997 (24%) and 3.157 (76%) mp gw, respectively. These sector-specific ACLs are reduced by 8% (recreational) and 5% (commercial) to reach the ACTs of 0.917 and 2.999 mp gw, respectively. Based on the resultant respective sector ACTs, the recreational fishing season would be closed when the recreational red grouper ACT was met or projected to be met; the commercial IFQ program would continue to operate as it presently does, albeit with a smaller quota (ACT) allocated for that sector. **Alternative 3** would amount to a reduction in the stock ACL from **Alternative 1** of approximately 61.4%, and is lower than the combined sector landings for red grouper for every year since 2001, with the exception of 2010 (area closures due to the *Deepwater Horizon* oil spill; Table 1.1.3).

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