

Modifications to Shallow-Water Grouper Management Measures



Amendment 58A to the Fishery Management Plan for Reef Fish Resources of the Gulf

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ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
AM	accountability measures
APAIS	Access Point Angler Intercept Survey
BMSY	stock biomass level capable of producing an equilibrium yield of MSY
BSIA	best scientific information available
BiOp	biological opinion
CFpA	net cash flow per angler
CHTS	Coastal Household Telephone Survey
CS	consumer surplus
Council	Gulf Council
Councils	Gulf and South Atlantic Fishery Management Councils
DPS	distinct population segments
DWG	deep-water grouper
E.O.	Executive Order
EA	Environmental Assessment
EEZ	exclusive economic zone
EFH	Essential Fish Habitat
EIS	Environmental impact statement
ESA	Endangered Species Act
F	Fishing mortality
FES	Fishing Effort Survey
FHS	for-hire survey
FL	fork length
FMP	Fishery Management Plan
FMSY	maximum sustainable yield
GDP	gross domestic product
GFMC	Gulf Fishery Management Council
GMFMC	Gulf of Mexico Fishery Management Council
GSAD	Gulf and South Atlantic Dealers
Gulf	Gulf of America (Formerly Gulf of Mexico)
HAPC	habitat areas of particular concern
IFQ	individual fishing quota
IRFA	initial regulatory flexibility analysis
LA Creel	Louisiana Department of Wildlife and Fisheries' recreational creel survey
LAPP	Limited Access Privilege Program
MFMT	maximum fishing mortality threshold
MMPA	Marine Mammals Protection Act
MRFSS	Marine Recreational Fishery Statistics Survey

MRIP	Marine Recreational Information Program
MSST	minimum stock size threshold
MSY	maximum sustainable yield
Magnuson-Stevens Act	Magnuson-Stevens Fishery Conservation and Management Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
OFL	overfishing limit
OST	Office of Science and Technology
OY	optimum yield
Other SWG	Other Shallow-water Grouper complex
PS	producer surplus
RFA	Regulatory flexibility analysis
RIR	Regulatory Impact Review
RQ	regional quotient
Reef Fish FMP	Fishery Management Plan for the Reef Fish Resources in the Gulf
SDC	status determination criteria
SEDAR	Southeast Data, Assessment, and Review
SEFSC	Southeast Fisheries Science Center
SEIS	Supplemental Environmental Impact Statement
SERO	Southeast Regional Office
SMZ	special management zone
SPR	spawning potential ratio
SRHS	Southeast Region Headboat Survey
SSB	spawning stock biomass
SSC	Scientific and Statistical Committee
SSRG	Social Scientists Research Group
SWG	shallow-water grouper
Secretary	Secretary of Commerce
South Atlantic Council	South Atlantic Fishery Management Council
TAC	total allowable catch
TL	total length
TNR	trip net revenue
TPWD	Texas Parks and Wildlife Department
WTP	willingness-to-pay
YFG	yellowfin grouper
YMG	yellowmouth grouper
gw	gutted weight
mp	million pounds
ww	whole weight

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CHAPTER 1. INTRODUCTION

1.1 Background

Several species of Gulf of America (Gulf)¹ grouper are currently managed together in the Other Shallow-water Grouper (SWG) complex: scamp (*Mycteroperca phenax*), yellowmouth grouper (*Mycteroperca interstitialis*), black grouper (*Mycteroperca bonaci*), and yellowfin grouper (*Mycteroperca venenosa*). These species were originally assigned to this complex in the Generic Annual Catch Limits (ACLs) and Accountability Measures (AMs) Amendment to the Fishery Management Plans (FMPs) of the Gulf Region (ACL/AM Amendment; GMFMC 2011). This grouping was based on where these species occurred in the Gulf environment, and whether it was common for these species to be caught on the same fishing trips. Until recently, none of these species had approved peer-reviewed stock assessments available to inform their stock status.² In 2022, a stock assessment of scamp and yellowmouth grouper was completed (SEDAR 68 2022), which assessed both species together, and was reviewed by the Gulf Council's (Council) Scientific and Statistical Committee (SSC).³ The SSC recommended updated status determination criteria (SDC) and catch advice for these two species. To act on these recommendations, the Council initiated work on Amendment 58A to the FMP for the Reef Fish Resources in the Gulf (Reef Fish FMP). While developing Amendment 58A, the Council finalized a framework action regarding Other SWG management at its June 2025 meeting. The purpose of that framework action is to reduce Other SWG catch levels to align with catch advice from SEDAR 68 and adjust the recreational fishing season to achieve those harvest targets beginning in 2026, while Amendment 58A (this document) is being finalized.

The Generic ACL/AM Amendment specified a total complex ACL for the Other SWG complex and apportioned a specified amount of the total complex ACL to the commercial sector. The Other SWG ACLs include a black grouper sector allocation of 73% to the commercial sector and 27% to the recreational sector. Additionally, the commercial sector takes 80.1% of the scamp, yellowfin, and yellowmouth grouper combined, with those percentages based on landings from 2001-2004. Catch limits are shown in Table 1.1.1. The commercial apportionment allows the commercial sector to operate under the Grouper-Tilefish Individual Fishing Quota (IFQ) program (Amendment 29 to the Reef Fish FMP; GMFMC 2008b). Landings (2000 – 2024) by species for the Other SWG are shown in Table 1.1.2. The recreational landings data used to develop the current catch limits were derived from the Marine Recreational Fisheries Statistics Survey (MRFSS), Southeast Regional Headboat Survey (SRHS), and Texas Parks and Wildlife Department (TPWD) creel survey. Recreational landings are now estimated using Marine Recreational Information Program (MRIP), complemented by the TPWD creel survey, the Louisiana Department of Wildlife and Fisheries Creel Survey (LA Creel), the SRHS, and the

¹ The Gulf of Mexico was renamed the Gulf of America pursuant to Executive Order 14172, and Secretary of the Interior Order No. 3423

² Black grouper had last been assessed in 2010 (SEDAR 19), but an assessment attempted in 2017 (SEDAR 48) had to be terminated due to irreconcilable data issues. Thus, no assessment for informing the stock status of black grouper relative to its SDC exists.

³ https://gulf-council-media.s3.amazonaws.com/uploads/2025/07/SWG-Framework-Action_Final.pdf
https://www.fisheries.noaa.gov/s3/2025-07/SWG-Framework-Action_Final.pdf

MRIP For-hire Telephone Survey (FHTS). MRIP includes the Access Point Angler Intercept Survey (APAIS; measures catch) and the Fishing Effort Survey (FES; estimates effort), and presently covers Florida, Alabama, and Mississippi. In this document, MRIP-FES is used to refer to harvest estimates made combining data from FES and APAIS. MRFSS and MRIP both generate landings estimates in pounds of fish, but those estimates are not directly comparable because they use different effort scales. Therefore, the total landings shown in Table 1.1.2 (in MRIP-FES) cannot be directly compared to the ABC/total ACL shown in Table 1.1.1 (in MRFSS). A depiction of the percentage of commercial landings attributable to each species within the Other SWG complex is shown in Figure 1.1.1.

Table 1.1.1. Catch limits and buffers by sector for Other SWG as established in the Generic ACL/AM Amendment. Values are in millions of pounds (mp) gutted weight (gw). OFL = overfishing limit; ABC = acceptable biological catch. An OFL for Other SWG and the recreational ACL are presently undefined.

Complex	Year	OFL	ABC (Total ACL)	Comm ACL	Comm Quota	Comm Buffer	Rec ACL
Other SWG	2015+	undefined	0.710	0.547	0.526	4%	undefined

Table 1.1.2. Landings for Other SWG by sector from 2000 – 2024. Landings are in lb gw. Black grouper and yellowfin grouper (YFG) are aggregated for the recreational sector due to data confidentiality requirements. Scamp and yellowmouth grouper (YMG) are aggregated for both sectors because of data confidentiality requirements.

Year		Commercial				Recreational (MRIP-FES)			Total Landings
		Black Grouper	Yellowfin Grouper	Scamp + YMG	Total Comm Landings	Black Grouper + YFG	Scamp + YMG	Total Rec Landings	
2000	Pre-IQ Years SEFSC Commercial ACL Files (February 2024)	390,587	6,996	44,673	442,256	10,777	47,774	58,551	500,807
2001		346,566	7,225	30,542	384,333	27,368	66,988	94,356	478,689
2002		283,751	7,856	47,543	339,150	34,132	93,232	127,363	466,513
2003		332,134	4,380	40,933	377,447	57,748	190,714	248,462	625,909
2004		354,782	6,258	53,848	414,888	8,256	141,870	150,126	565,014
2005		208,309	6,523	47,052	261,884	179,705	168,559	348,264	610,148
2006		147,329	689	35,980	183,998	1,915	324,857	326,773	510,771
2007		92,189	3,913	61,417	157,519	19,863	115,204	135,067	292,586
2008		65,081	2,464	73,528	141,073	3,984	278,926	282,910	423,983
2009		39,702	1,962	66,812	108,476	87,558	198,979	286,538	395,014
2010	Gulf IQ Program	20,905	1,394	153,618	175,917	334	92,861	93,195	269,112
2011		34,970	945	149,834	185,749	565	124,482	125,048	310,797
2012		47,537	739	249,826	298,102	51,382	237,192	288,573	586,675
2013		56,750	856	243,129	300,735	5,916	261,780	267,696	568,431
2014		60,555	568	169,125	230,248	826	264,471	265,297	495,545
2015		54,831	442	183,154	238,427	3,807	342,097	345,904	584,331
2016		48,788	709	285,741	335,238	8,182	244,715	252,897	588,135
2017		37,032	152	162,825	200,009	8,826	193,595	202,421	402,430
2018		34,806	440	143,047	178,293	358	233,878	234,236	412,529
2019		25,634	377	114,072	140,083	354	411,764	412,118	552,201
2020		25,345	66	119,043	144,454	2,101	380,593	382,694	527,148
2021		25,899	47	129,982	155,928	199	317,851	318,050	473,978
2022		23,892	54	122,752	146,698	1,215	326,023	327,237	473,935
2023		39,814	61	109,137	149,012	32,744	211,221	243,964	392,976
2024		23,622*		79,704	103,326	17,571	200,134	217,705	321,031

Sources: Commercial data from SEFSC Commercial ACL Data (March 2024); SERO Catch Share Database (February 2024). Recreational data from SEFSC Recreational MRIP-FES ACL File (MRIP_FES_rec81_23wv6_24Apr24). *Commercial landings in 2024 for black grouper and yellowfin grouper are aggregated for data confidentiality and 2024 recreational data are preliminary.

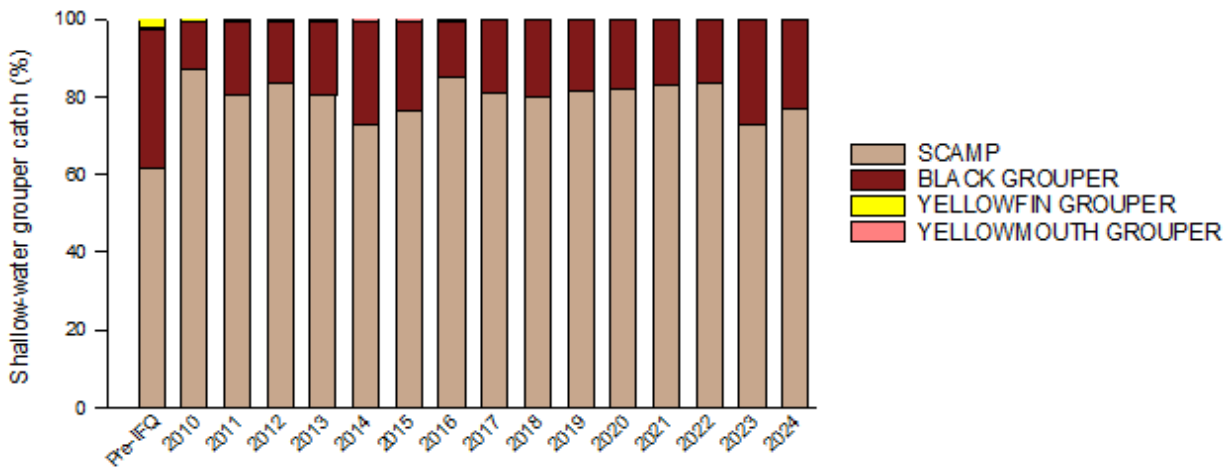


Figure 1.1.1. Percentages of commercial landings by species for the Other SWG complex from the 2024 Grouper-Tilefish IFQ Program Report⁴. Average data for the three years prior to the start of the IFQ program (2007-2009) are summarized as “Pre-IFQ”.

Commercial Sector

Commercial harvest of Other SWG has been managed under the Grouper-Tilefish IFQ program since 2010 (GMFMC 2008b). Anyone commercially fishing for Other SWG must possess a federal commercial reef fish permit, have an active vessel monitoring system, have an IFQ account, and hold Other SWG allocation under the IFQ program. IFQ allocation is determined and distributed at the beginning of each calendar year by multiplying a shareholder's IFQ Other SWG shares, represented as a fraction of the total commercial quota, times the commercial quota for that share category. Allocation can be transferred to accounts that do not hold Other SWG shares. The current commercial quota is set 4% below the commercial ACL (GMFMC 2011; Table 1.1.1) and was originally established primarily to account for flexibility measures in the IFQ program between the SWG and deep-water grouper (DWG) share categories. These flexibility measures allow fishermen to land certain species from one share category under the other share category, so long as they no longer hold any allocation for the share category in which the species is included. A secondary reason for the 4% buffer was to account for uncertainty in discards at the beginning of the IFQ program. The stock assessments for IFQ species assume very high certainty in commercial landings estimates relative to non-IFQ species due to rigorous program reporting requirements. Recently, the Council discussed the possibility of removing the flexibility measures and the associated buffer⁵ and decided to review this provision in Amendment 58A (this document). The IFQ program acts as the AM for the commercial portion of the reef fish fishery for Other SWG. The pounds available to the commercial sector are released to shareholder accounts on January 1 each year and cannot be recalled, and commercial fishermen cannot land Other SWG species without the requisite allocation. As a result, the commercial quota has never been exceeded for this complex under the IFQ program.

⁴ https://noaa-sero.s3.amazonaws.com/drop-files/cs/2022_GT_AnnualReport_Final.pdf

⁵ Beginning page 143-- <https://gulf-council-media.s3.amazonaws.com/uploads/2025/02/GMFMC-Full-Council-August-2024.pdf>

Recreational Sector

An in-depth discussion of the various Gulf recreational data collection surveys is available in Appendix E. Recreational fishing for Other SWG occurs primarily via hook-and-line. All species can be caught throughout the Gulf except for black grouper, which is most common to the southeastern Gulf off Florida. Recreational landings comprise an increasing proportion of harvest for the Other SWG complex (see Table 1.1.2).

Presently, there is no defined ACL for the recreational sector for Other SWG. Thus, outside of the use of the IFQ program as the AM for the commercial sector, the only other AM for the Other SWG is a post-season AM for the recreational sector. This AM requires that in the year following an overage of the Other SWG stock ACL, recreational fishing for Other SWG will close when the complex stock ACL is projected to be reached. No payback provision for an overage of a complex ACL currently exists.

The recreational data collection process was disrupted in 2020 due the COVID-19 pandemic. Dockside samplers were unable to engage recreational fishermen and conduct interviews because of human proximity restrictions meant to suppress the spread of the COVID-19 virus for a substantial portion of the 2020 calendar year. As a result, 2020 recreational data for Other SWG will be omitted from analyses used to inform recreational action alternatives.

Recent Stock Assessments and Catch Projections

SEDAR 68 (2022)

SEDAR 68 was completed in 2022 using data through 2020 and assessed both scamp and yellowmouth grouper together as a single complex. The stock identification workshop for SEDAR 68 determined that species misidentification was likely for scamp and yellowmouth grouper measuring approximately 16 inches total length and less. Thus, the decision was made to assess the two species together due to the potential for species misidentification, combined with similar life histories. This is the first time these species have been formally assessed. The stock assessment used updated recreational landings information informed by MRIP-FES. In reviewing SEDAR 68, the SSC determined that the current maximum sustainable yield (MSY) proxy of the yield when fishing mortality (F) is at a 30% spawning potential ratio ($F_{30\%SPR}$), was not biologically appropriate for protogynous hermaphrodites (animals which begin life as females and can change sex to male at older ages), like scamp and yellowmouth grouper. Thus, the SSC recommended changing the MSY proxy to a more conservative yield when fishing at $F_{40\%SPR}$, thereby ensuring a larger fraction of the spawning stock biomass (SSB) would be conserved each year to support future recruitment. The issue of recruitment was discussed during the review, with the SSC determining it more appropriate to project future yield under a more conservative recruitment forecast commensurate with recent data (Table 1.1.3).

At its November 2024 meeting, the Council directed the SSC to provide a comparison of the MSY proxy assuming an SPR of 30% and 40%, along with associated catch levels, for scamp and yellowmouth grouper. The Council also requested inclusion of updated scamp and yellowmouth grouper landings data from 2021-2023 and estimates of anticipated landings in

2026 that would be reduced by 54.7% based on the 2025 framework action Modifications to Other Shallow Water Grouper Complex Management Measures (GMFMC 2025). At its May 2025 meeting, the SSC reviewed updated landings and projections for scamp and yellowmouth grouper.⁶ The SSC discussed the need to evaluate its recommendation for a proxy for F_{MSY} (assuming either an SPR 30% or 40%) and what to recommend for a corresponding catch limit. The SSC recommended to the Council catch advice for scamp and yellowmouth grouper where the OFL was equal to the yield at $F_{40\%SPR}$, or 233,000 lb gw, and the ABC was set at 75% of $F_{40\%SPR}$, or 183,000 lb gw, for 2027 – 2031 and subsequent years (Table 1.1.4). Consistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), the Council is considering the SSC recommendations to change the MSY proxy and specify new catch limits consistent with that new MSY proxy and the results of updated projections using the SEDAR 68 assessment model.

Table 1.1.3. Summary of selected Magnuson-Stevens Act benchmarks and reference points for the SEDAR 68 assessment. SSB is in metric tons (male and female combined SSB), whereas F is a harvest rate (total biomass killed all ages / total biomass age 1+). An SPR proxy of 40% is presented.

Criteria	Definition	Value
$F_{MSYProxy}$	Equilibrium F to achieve 40% SPR	0.117
MFMT	$F_{MSYProxy}$	0.117
$F_{Current}/MFMT$	Current overfishing status	0.786
MSST	$0.75 * SSB_{40\%SPR}$	922
$SSB_{Current}/MSST$	Overfished status based on MSST	1.41

Table 1.1.4. SSC recommended OFL and ABC values from May 2025 for scamp and yellowmouth grouper, based on the results of updated projections using the SEDAR 68 (2022) assessment model and using an MSY proxy of the yield when fishing at $F_{40\%SPR}$. Catch limits are in lb gw.

Years	OFL	ABC
2027-2031+	233,000	183,000

To constrain harvest to the reduced catch limits and to prevent future overfishing of scamp and yellowmouth grouper, these stocks need to be managed separately from black grouper and yellowfin grouper. Black grouper was last assessed as a single stock that spans the jurisdictions of both the Gulf and South Atlantic Fishery Management Councils (SEDAR 19 2010). Thus, the stock OFL and ABC include harvest in both the Gulf and South Atlantic and the ABC is apportioned between the two regions as specified in the Generic ACL/AM Amendment. Because any changes to the stock OFL and ABC would need to be recommended by both Councils, the Gulf Council is not considering any changes to those catch limits. The proposed combined black grouper and yellowfin grouper catch limits are based on the established Gulf apportionment of the black grouper ABC. There is no stock assessment for yellowfin grouper.

⁶ The full May 2025 SSC meeting summary can be read through this link: <https://gulf-council-media.s3.amazonaws.com/uploads/2025/05/Gulf-Standing-SSC-Summary-May-2025-05142025.pdf>

The yellowfin grouper portion of the combined catch limits was derived using average total yellowfin grouper landings from the years 1999 – 2008.

Table 1.1.5. Catch limits for black grouper and yellowfin grouper in the Gulf, using the time series for each as recommended in the Generic ACL/AM Amendment, and following the jurisdictional apportionment with the South Atlantic Fishery Management Council for black grouper. Catch limits are in lb gw and recreational catch limits are based on MRFSS.

Year	OFL	Gulf ABC	Gulf Comm ACL	Gulf Comm ACT	Gulf Rec ACL
2015+	Undefined	310,844	227,735	218,626	83,109

Other SWG and Deep-water Grouper (DWG) Flexibility Measures

Amendment 29 to the Reef Fish FMP (GMFMC 2009) established flexibility measures between the Other SWG and DWG complexes to reduce discards and allow commercial fishermen to better use the allocation they have in a given fishing year. These measures were implemented without regard to a species’ stock status. A graphical depiction of these flexibility measures is shown in Figure 1.1.2. Briefly:

- A shareholder may land scamp under their DWG allocation, so long as they have no Other SWG allocation remaining in their shareholder account or any associated vessel accounts.
- A shareholder may land warsaw grouper or speckled hind under their Other SWG allocation, so long as they have no DWG allocation remaining in their shareholder account or any associated vessel accounts.

Due to the risk of overfishing scamp and yellowmouth grouper (current landings compared to the proposed ABC), and the need to restructure the Other SWG share category, the Council considered whether to establish a similar flexibility measure for the newly proposed Scamp Complex that allows warsaw grouper and speckled hind to be landed under one of the new share categories’ allocation when certain conditions are met. With the reduction in quota for SWG, it is not expected that fishermen would utilize this flexibility provision measure unless they had extremely limited DWG allocation available to them, especially as the DWG quota is also expected to decrease. As result, the Council decided to move an action that would consider implementing a flexibility measure to ‘Considered but Rejected’ (Appendix A).

Distribution of IFQ program shares to newly established share categories

During its November 2025 meeting, the Council considered a number of alternatives for assigning IFQ program shares to the newly established Scamp Complex and Black Grouper Complex share categories. Three mechanisms to distribute IFQ shares were discussed including: retaining a participant’s Other SWG IFQ share percentage and assigning that percentage to both complexes (e.g. 1% share of Other SWG would result in 1% share of Scamp Complex and 1% share of Black Grouper Complex), landings history over several time periods, or some proportion of both held shares and landings history. Ultimately a dedicated action for this decision was moved to Considered but Rejected (Appendix A); however, the Council decided to distribute Other SWG IFQ shares using the first approach and distribute Scamp Complex and

Black Grouper Complex share categories based on existing Other SWG share percentages. The Council also determined that the same share cap used for Other SWG (7.266147%) should be retained for each new complex.

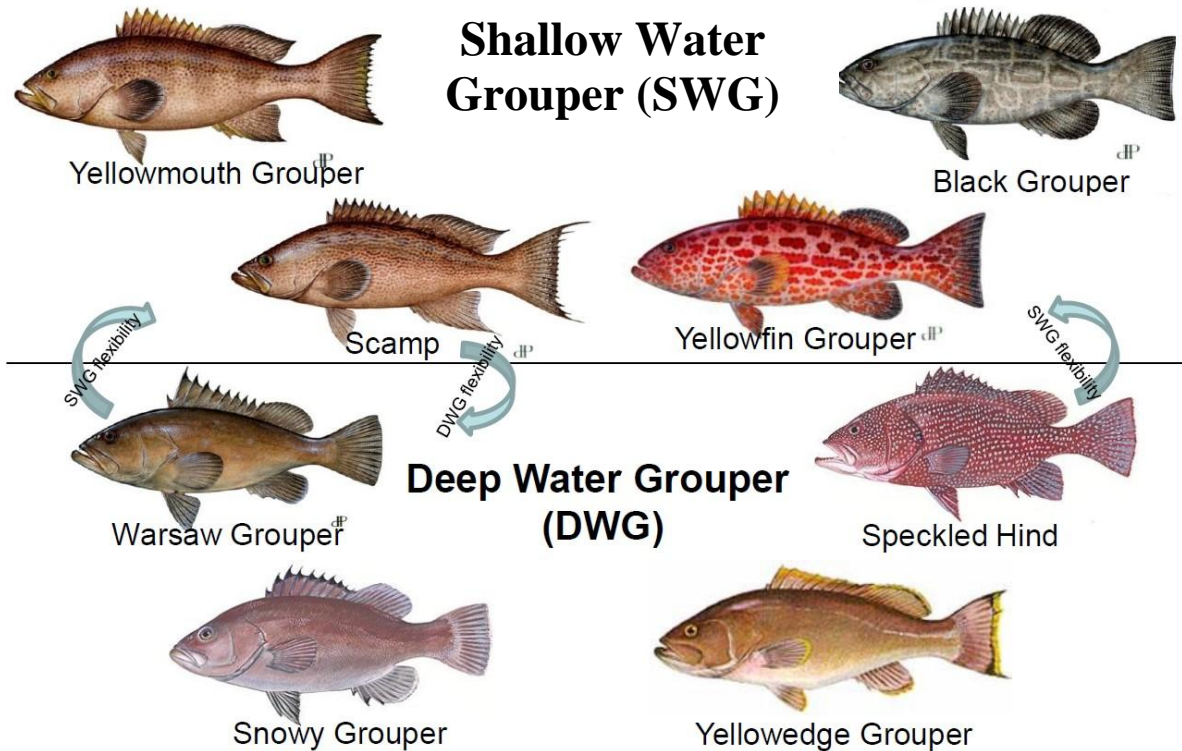


Figure 1.1.2. Depiction of the SWG and DWG flexibility measures as defined in Amendment 29 to the Reef Fish FMP.

Shallow-water grouper framework action

In June 2025, the Council approved a SWG framework for final action. The purpose of the document was to reduce the Other SWG complex ABC by 54.7%, set the stock complex ACL equal to 322,000 lb gw, the commercial ACL equal to 255,636 lb gw, and the commercial ACT (quota) equal to 245,410 lb gw. The framework action would also establish a recreational fixed closed season for the Other SWG complex from January 1- June 30 (Open July 1 – December 31). These actions were taken to reduce harvest of the Other SWG complex to a level consistent with sustainable harvest as informed by the most recent stock assessment for scamp and yellowmouth grouper in a timely manner. However, these harvest reductions are not needed for black grouper or yellowfin grouper hence the rationale by the Council to break out the Other SWG complex into new complexes as described within this amendment.

1.2 Purpose and Need

The purpose of this amendment is to modify the status determination criteria, catch limits, sector allocations, and accountability measures for individual species within the Other SWG complex by creating two new complexes in response to the results of SEDAR 68 which assessed scamp and yellowmouth grouper as a complex.

The need for these actions is to consider new stock assessment advice for scamp and yellowmouth grouper that is consistent with the best scientific information available to implement measures to avoid future overfishing, avoid triggering a rebuilding plan, and to achieve OY for the species considered herein, consistent with the authority under the Magnuson-Stevens Act.

1.3 History of Management

The original **Reef Fish FMP**, implemented in November 1984, was designed to rebuild declining reef fish stocks. It included prohibitions on the use of fish traps, roller trawls, and powerhead-equipped spear guns within an inshore stressed area and data reporting requirements.

Amendment 1 to the Reef Fish FMP, including an environmental assessment (EA), regulatory impact review (RIR), and regulatory flexibility analysis (RFA), implemented in 1990, set objectives to stabilize long-term population levels of all reef fish species by establishing a survival rate of biomass into the stock of spawning age fish to achieve at least 20% spawning stock biomass per recruit by January 1, 2000. It set a five-grouper recreational daily bag limit; allowed a 2-day possession limit for charter vessels and head boats 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; set an 11.0 mp commercial quota for grouper, with the commercial quota divided into a 9.2 mp SWG (black grouper, gag, red grouper, Nassau grouper, yellowfin grouper, yellowmouth grouper, rock hind, red hind, speckled hind, and scamp) quota and a 1.8 mp DWG (misty grouper, snowy grouper, yellowedge grouper, and warsaw grouper, and scamp once the SWG quota was filled) quota; 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 longline gear 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 (up to 100 fish traps per permit holder); and established a commercial reef fish vessel permit.

A **July 1991 Regulatory Amendment**, including EA and effective November 1991, provided a one-time increase in the 1991 quota for SWG from 9.2 mp to 9.92 mp.

Amendment 3 to the Reef Fish FMP, including an EA, RIR, and RFA and implemented in July 1991, transferred speckled hind from the SWG quota category to the DWG quota category.

A November 1991 Regulatory Amendment, including EA, RIR and initial regulatory flexibility analysis (IRFA) and effective June 1992, raised the 1992 commercial quota for shallow-water groupers to 9.8 mp whole weight (ww).

Amendment 5 to the Reef Fish FMP, including an EA, RIR, and RFA and implemented in February 1994, established restrictions on the use of fish traps in the Gulf exclusive economic zone (EEZ); implemented a three-year moratorium on the use of fish traps by creating a fish trap endorsement for fishermen with historical landings; created a special management zone (SMZ) with gear restrictions off the Alabama coast; created a framework procedure for establishing future SMZ's; required that all finfish except for oceanic migratory species be landed with head and fins attached; and closed the region of Riley's Hump (near Dry Tortugas, Florida) to all fishing during May and June to protect mutton snapper spawning aggregations.

A Framework Action, including an EA, RIR, and RFA implemented in June 2000, increased the commercial size limit for black grouper from 20 to 24 inch total length (TL); prohibited commercial sale of gag, black, and 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.

Secretarial Amendment 1 to the Reef Fish FMP, including Environmental Impact Statement (EIS), RIR, IRFA, and effective July 2004, revised the commercial trip limit to 5,200 lb gutted weight (gw) to achieve a red grouper harvest reduction, a reduction in the SWG quota from 9.35 mp gw (9.8 mp ww) to 8.8 mp gw, and repealed the Feb. 15 – Mar. 15 closed season on commercial harvest of red grouper, black grouper and gag in the Gulf exclusive economic zone (EEZ) (which appeared to be resulting in mini-derby fisheries around the closed season rather than a fishing reduction). The DWG quota was reduced from 1.6 mp ww (equal to 1.35 mp landed weight) to 1.02 mp gw. NMFS rejected the proposed 5,200-pound SWG trip limit and the repeal of the February 15 – March 15 commercial closed season. The remaining proposed measures were approved, and NOAA added a commercial red grouper quota of 5.31 million pounds gutted weight with the stipulation that the commercial SWG fishery close when either the SWG quota or red grouper quota is reached, whichever occurs first.

An October 2005 Regulatory Amendment, including EA, RIR, IRFA and implemented in January 2006, established an aggregate DWG and SWG commercial trip limit of 6,000 lb gw.

Amendment 29 to the Reef Fish FMP, including an EA, RIR, and RFA, implemented January 2010, established an IFQ system for the commercial harvest of grouper and tilefish.

Amendment 30B to the Reef Fish FMP, including a final Supplemental Environmental Impact Statement (SEIS), RIR and IRFA, implemented May 2009, established ACLs and AMs for the commercial aggregate SWG fishery. For the commercial sector, the amendment for 2009 reduced the aggregate SWG quota from 8.80 mp gw to 7.48 mp gw. The gag and SWG quotas were scheduled to increase in subsequent years as the gag stock rebuilt. When 80 percent of a grouper species quota is reached, the allowable catch per trip for that species will be reduced to an incidental catch limit of 200 pounds until the species quota is filled, in order to reduce discard

mortality of that species while fishermen target other species. The amendment repealed the commercial closed season of February 15 to March 15 on gag, black and red grouper, and replaced it with a January through April seasonal area closure to all fishing at the Edges 40-fathom contour, a 390-nautical square mile gag spawning region northwest of Steamboat Lumps. In addition, the Steamboat Lumps and Madison-Swanson fishing area restrictions were continued indefinitely. For the recreational sector, the amendment reduced the aggregate grouper bag limit from five fish to four. A recreational closed season on SWG was established from February 1 through March 31 shoreward of 20-fathoms. Finally, the amendment required that all vessels with federal commercial or charter reef fish permits comply with the more restrictive of state or federal reef fish regulations when fishing in state waters.

Amendment 31 to the Reef Fish FMP, including a final SEIS, RIR and IRFA, implemented May 2010, prohibited the use of bottom longline gear shoreward of a line approximating the 35-fathom contour from June through August; established a longline endorsement; and restricted the total number of hooks onboard each reef fish bottom longline vessel to 1,000, of which only 750 may be rigged for fishing.

Amendment 32 to the Reef Fish FMP, including EIS, RIR and IRFA and implemented in March 2012, contained a commercial SWG quota adjustment to account for dead discards, and simplified the commercial SWG AMs by using the IFQ program to reduce redundancy.

Amendment 38 to the Reef Fish FMP, including EA, RIR, and RFA and implemented in March 2013, revised the postseason recreational AM that reduces the length of the recreational season for all SWG in the year following a year in which the ACL for gag or red grouper is exceeded. The modified AM reduces the recreational season of only the species (gag or red grouper) for which the ACL was exceeded.

A 2013 Framework Action, including EA, RIR, and RFA and implemented in March 2013, eliminated the February 1 through March 31 SWG closure shoreward of 20 fathoms.

Amendment 44 to the Reef Fish FMP standardized the MSST for certain reef fish species. The MSST is used to determine whether a stock is overfished; if the biomass of the stock falls below the threshold, then the stock is overfished. The MSST for several reef fish species was set equal to 50% of the biomass at MSY. This amendment was approved on December 21, 2017.

Amendment 36A to the Reef Fish FMP, including EIS, RIR and IRFA and implemented in January 2019, requires all reef fish permitted vessels landing federally managed reef-fish to land at approved locations and hail-in at least 3 hours, but no more than 24 hours before landing. The Amendment returns red snapper and grouper-tilefish shares from non-activated IFQ accounts to NMFS for redistribution and allows NMFS to withhold a portion of IFQ allocation at the start of the year equal to an anticipated quota reduction.

CHAPTER 2. MANAGEMENT ALTERNATIVES

2.1 Action 1: Modification of Gulf of America (Gulf) Other Shallow-water Grouper (SWG) Complex and Individual Fishing Quota (IFQ) Share Categories

Alternative 1: No Action – Maintain the current composition of the Other SWG complex: scamp, yellowmouth grouper, black grouper, and yellowfin grouper.

Preferred Alternative 2: Dissolve the Other SWG complex and form two new complexes from the remaining species. The first is the scamp and yellowmouth grouper complex (Scamp Complex); the second is the black grouper and yellowfin grouper complex (Black Grouper Complex). Create two new IFQ share categories: one for the Scamp Complex and one for the Black Grouper Complex. Shares would be distributed such that shareholders would receive the same percentages in each of the two new categories that they held upon dissolution of the Other SWG complex. The number of shares any one individual account may possess for each new complex would be capped at 7.266147%.

*Note: **Alternative 1** is inconsistent with the best scientific information available (BSIA) and is therefore not a viable alternative.*

Discussion:

This action would modify the Other SWG complex based on the results of the SEDAR 68 stock assessment, which assessed scamp and yellowmouth grouper as a single complex. SEDAR 68 used data through 2020 and used updated recreational landings information informed by the Marine Recreational Information Program (MRIP) Access Point Angler Intercept Survey and Fishing Effort Survey (Collectively referred to as MRIP-FES). The SEDAR 68 stock assessment and its resultant catch projections were determined to be consistent with the BSIA by the Gulf Council's (Council) Scientific and Statistical Committee (SSC). Subsequently, at its November 2024 meeting, the Council directed the SSC to provide a comparison of the maximum sustainable yield (MSY) proxies when fishing mortality (F) is at a 30% spawning potential ratio (SPR) and a 40% SPR, along with associated catch levels for scamp and yellowmouth grouper. In November 2024, the Council also requested inclusion of updated scamp and yellowmouth grouper landings data from 2021-2023 and estimates of anticipated landings in 2026 that would be reduced by 54.7% based on the 2025 framework action Modifications to Other Shallow Water Grouper Complex Management Measures (GMFMC 2025). At its May 2025 meeting, the SSC reviewed updated landings and projections for scamp and yellowmouth grouper based on those new data requests. The SSC maintained its recommendations for separating the Other SWG complex into two sub-complexes, and to use an MSY proxy defined as the yield at $F_{40\%SPR}$.

Black grouper was last assessed as a single stock across the Gulf and South Atlantic Fishery Management Councils' jurisdictions in the southeastern U.S. (SEDAR 19 2010). Thus, the stock overfishing limit (OFL) and acceptable biological catch (ABC) include harvest in both the Gulf

and South Atlantic regions and the ABC is apportioned between the two regions as specified in the Generic Annual Catch Limit (ACL)/Accountability Measure (AM) Amendment (GMFMC 2011). Because any changes to the stock OFL and ABC would need to be recommended by both Councils, the Gulf Council is not considering any changes to those catch limits at this time. The proposed combined black grouper and yellowfin grouper catch limits include the established Gulf apportionment of the black grouper ABC. It should be noted that the last attempt at a stock assessment for southeastern U.S. black grouper was terminated due to irreconcilable data issues during the data workshop (SEDAR 48 2017). The Gulf yellowfin grouper stock has never been assessed as it is considered severely data limited.⁷

Alternative 1 (No Action) would maintain the current Other SWG complex, such that it includes scamp, yellowmouth grouper, yellowfin grouper, and black grouper. This alternative is not viable for several reasons. SEDAR 68 included recreational landings estimates for scamp and yellowmouth grouper derived from MRIP-FES, while recreational landings estimates for yellowfin grouper and black grouper are from the Marine Recreational Fisheries Statistics Survey (MRFSS). Therefore, the recreational landings histories for these pairs of species are not comparable at this time and cannot be combined within a single complex. In addition, scamp and yellowmouth grouper require a substantial reduction in the allowable harvest based on SEDAR 68 and the SSC's recommendations. As a result of the markedly lower catch advice for scamp and yellowmouth grouper from SEDAR 68, allowing the current Other SWG complex to persist as is could allow for overfishing of scamp and yellowmouth grouper. For these reasons, retaining the SWG complex, as is, over the long-term is problematic. If the complex structure is unchanged, there is a probability harvesting scamp and yellowmouth grouper at unsustainable levels or constraining black grouper and yellowfin grouper to reduced harvest levels when there is no scientific rationale for doing so.

Preferred Alternative 2 would modify the Other SWG complex to form two sub-complexes. The Scamp Complex would include scamp and yellowmouth grouper and the Black Grouper Complex would include black grouper and yellowfin grouper. In addition, because Other SWG species are commercially harvested under the Grouper-Tilefish IFQ program, **Preferred Alternative 2** would also create two new share categories that replace the Other SWG share category. One share category would include scamp and yellowmouth grouper, and the other would include black grouper and yellowfin grouper. As a result of the Other SWG share category being modified into two new share categories, the flexibility measures as written in Amendment 29 to the Fishery Management Plan for the Reef Fish Resources of the Gulf (Reef Fish FMP; GMFMC 2008b) would no longer be applicable and would be eliminated.

Because **Alternative 1** (No Action) is not viable, and **Preferred Alternative 2** best represents the biological requirements of these managed species consistent with the BSIA, no other alternatives are being considered under this action.

⁷ <https://sedarweb.org/documents/summary-of-available-data-for-data-limited-species-in-the-gulf-of-mexico-reef-fish-fishery-management-plan-that-have-never-been-assessed/>

2.2 Action 2: Establish MSY, Optimum Yield (OY), Status Determination Criteria (SDC), Catch Limits, and Sector Allocations for the Black Grouper Complex

Alternative 1: No Action – Do not establish MSY, maximum fishing mortality threshold (MFMT), minimum stock size threshold (MSST), or OY for the new Black Grouper Complex as established in Action 1. Do not set an OFL, ABC, or complex ACL for the Black Grouper Complex. Do not establish allocations for the recreational and commercial sectors in the Black Grouper Complex.

Preferred Alternative 2: Establish an MSY proxy, MFMT, MSST, and OY as defined for the Other SWG Complex and for black grouper in Amendment 48 to the Reef Fish FMP (GMFMC 2021) and set the SDC for the Black Grouper Complex based on the SSC recommendation of $F_{30\%SPR}$. Establish catch limits for the Black Grouper Complex as detailed in the table below, consistent with the Generic ACL/AM Amendment (GMFMC 2011) and the SSC’s recommendations.

Criteria Type	Values
MSY	yield at $F_{30\%SPR}$
MFMT	F_{MSY}
MSST	75% of B_{MSY}
OY	90% of MSY
OFL	Undefined*
ABC	310,844
Stock ACL	310,844
Comm ACL	227,000 [†]
Rec ACL	83,109

*The black grouper OFL is for Gulf and South Atlantic combined, while the yellowfin OFL is for the Gulf. The stock complex ABC represents the summation of the ABC for yellowfin grouper and the Gulf-apportioned ABC for black grouper. Catch limits are in pounds gutted weight (lb gw) and are based in part on MRFSS data.

[†]See Appendix E

Discussion:

This action considers establishing management criteria for a new Gulf Black Grouper Complex. Rationale for the SDC (i.e. MSY and OY), catch limits, and sector allocations in **Preferred Alternative 2** is provided in the discussion below.

SDC for the Black Grouper Complex

Alternative 1 (No Action) would not establish any SDC or catch limits for the Black Grouper Complex (if established in Action 1). This would be inconsistent with the requirements of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; Section 302(h)(6)) and is therefore not a viable option.

Preferred Alternative 2 would establish SDC and catch limits for the Black Grouper Complex. The SDC would be consistent with those established for the Other SWG complex in Amendment 48 to the Reef Fish FMP (GMFMC 2021). When developing Amendment 48, a range of SDC proxy values for MSY and MFMT were considered for the Other SWG complex. The Council selected an MSY proxy of the yield when fishing at $F_{30\%SPR}$. A Gulf-specific stock assessment has not been conducted for black grouper or yellowfin grouper. Therefore, retaining the previous MSY proxy ($F_{30\%SPR}$) determination for the new Black Grouper Complex is appropriate until a time when new scientific information or an assessment is made available to inform changes to MSY. **Preferred Alternative 2** would also set the MFMT for the Black Grouper Complex equal to F_{MSY} .

MSST must be set at or below the biomass level capable of producing the MSY or the MSY proxy (B_{MSY} [or B_{MSY} proxy]) for a stock or stock complex. It is used to determine when a stock or stock complex is overfished. If fishing mortality can be kept below the OFL consistently, the stock or stock complex biomass is unlikely to drop below the MSST and become overfished. However, the stock or stock complex biomass can fluctuate due to natural variability and due to management being unsuccessful in constraining fishing mortality. In such cases, there are concerns with setting MSST either too close to or too far from B_{MSY} (or B_{MSY} proxy).

Preferred Alternative 2 would set MSST at 75% of B_{MSY} for the Black Grouper Complex. Porch *et al.* 2016 stated the probability that a stock will fall below 75% of B_{MSY} when it is not undergoing overfishing owing to random fluctuations in recruitment and natural mortality was low for the species examined in that study. Those species included two grouper species with differing life history traits (gag and yellowedge) along with three other reef fish species (gray triggerfish, red snapper, and vermilion snapper). For all species considered in the study, a full recovery to B_{MSY} was possible within 10 years even if the stock had been depleted to 50% of B_{MSY} . However, it is important to recognize that in many of the assessments examined, as well as for species within the Black Grouper Complex, the relationship between spawning potential and the number of recruits was poorly determined and often assumed to be weak in the projections (i.e., high steepness, low compensatory mortality). An implication of the study result is that a stock which is identified as being below 75% of B_{MSY} likely did not arrive there by random or natural influences. Therefore, an MSST at 75% of B_{MSY} is being considered for the Black Grouper Complex.

The Magnuson-Stevens Act and its National Standard (NS) 1 guidelines state that OY should be based on MSY as reduced by relevant economic, social, and ecological factors. The NS 1 guidelines also state that OY should include some consideration of uncertainty. National Marine Fisheries Service (NMFS) Southeast Fisheries Science Center (SEFSC) staff and the SSC have recommended against specifying OY as the yield at a certain F (total biomass killed all ages / total biomass vulnerable to fishing) and have suggested instead it be a percentage of MSY.⁸ The Council ultimately set OY in Amendment 48 at 90% of MSY. Thus, OY for the Black Grouper Complex would be set at 90% of MSY in **Preferred Alternative 2**.

Catch Limits and Sector allocations

Black grouper is considered to be a single stock across the Gulf and South Atlantic regions. Apportionment between the regions is based on the Council jurisdictional boundary: South Atlantic = 47% of stock ABC and Gulf = 53% of stock ABC (as established by using 50% of catch history from 1986 – 2008 + 50% of catch history from 2006 – 2008). The Gulf Council's SSC recommended reductions for the Gulf black grouper catch limits, but because the black grouper stock is co-managed by the South Atlantic Fishery Management Council, no change to those catch limits could be made without their cooperation. Under **Alternative 1** (No Action), no catch limits or sector allocations would be established for the Black Grouper Complex. **Preferred Alternative 2** would establish sector allocations for the Black Grouper Complex based on the Generic ACL/AM Amendment. From the Generic ACL/AM Amendment, sector allocation of black grouper and yellowfin grouper were determined from landings during the years 2004-2008 and 2001-2004, respectively. Under **Preferred Alternative 2**, the stock complex ABC is the sum of the ABC for yellowfin grouper and the Gulf-apportioned ABC for black grouper. The Black Grouper Complex ACL would be established and set equal to the complex ABC. The Black Grouper Complex recreational sector ACL would be equal to the sum of the percentage recreational allocation specified for black grouper multiplied by the complex ACL and the percentage recreational allocation specified for yellowfin grouper multiplied by the complex ACL. The commercial ACL would be equal to the percent allocation specified in each alternative for black grouper multiplied by the complex ACL and the percentage recreational allocation specified for yellowfin grouper multiplied by the complex ACL but rounded down to the nearest thousand pounds. This is necessary with the IFQ program to avoid potential overages of the commercial ACL by distributing shares in excess of the commercial ACL. The black grouper species ACLs would be based on an apportionment of 73% of the species ACL for the commercial sector and 27% for the recreational sector, consistent with the Generic ACL/AM Amendment. The yellowfin grouper ACLs would be based on an apportionment of 80.1% of the species ACL for the commercial sector and 19.9% for the recreational sector, also consistent with the Generic ACL/AM Amendment.

⁸ E-mail from Clay Porch, SEFSC to the Amendment 48, Red Drum Amendment 5 interdisciplinary plan team, dated February 21, 2020.

2.3 Action 3: Recreational AMs for the Black Grouper Complex

Alternative 1: No Action – Do not establish recreational sector AMs for the Black Grouper Complex.

Preferred Alternative 2: A post-season recreational AM would be implemented for the Black Grouper Complex. In the year following an overage of both the recreational ACL and the Black Grouper Complex ACL, NMFS would close the recreational Black Grouper Complex to harvest when the recreational ACL is met or is projected to be met, unless NMFS determines based upon the BSIA that closure of the recreational fishing season is unnecessary.

Alternative 3: For the recreational sector, if the average recreational Black Grouper Complex landings exceed the average recreational ACL and the average Black Grouper Complex landings exceed the average Black Grouper Complex ACL over a three-year moving period, the Regional Administrator (RA) would reduce the duration of the recreational season by the amount projected such that the recreational ACL is not exceeded during the following fishing year, unless NMFS determines based upon the BSIA that no adjustment to the recreational fishing season is necessary.

Discussion:

Alternative 1 (No Action) would not establish recreational sector AMs for the Black Grouper Complex. **Preferred Alternative 2** would establish a post-season AM, requiring NMFS, in the fishing year after the complex ACL was exceeded, to monitor and close recreational harvest when the stock ACL is reached or projected to be reached. As a result, an overage of the recreational ACL in a single year would not necessitate a closure of the fishery, thus providing more continuous fishing opportunity across seasons. **Alternative 3** would use a three-year moving average of recreational landings to compare to the recreational ACL and the complex ACL. If the three-year average results in exceeding both, the NMFS RA would reduce the duration of the recreational season by the amount projected to ensure that the recreational ACL is not exceeded during the following fishing year. Both **Preferred Alternative 2** and **Alternative 3** have an additional provision that would allow NMFS to determine if any adjustment to recreational fishing season is warranted.

To assess the potential effects of implementing a post-season AM as considered in **Preferred Alternative 2** and **Alternative 3**, two analyses were conducted. The first analysis produced recreational harvest simulations (1-year and 3-year averages) based on average Black Grouper Complex landings from 2000-2023 and the second was a rudimentary prediction analysis to if any of three methods (assume what was harvested in the previous year will be harvested in the next year, a three-year moving average of harvest to predict the following year's harvest, or a weighted moving three-year average of harvest) performed any better at predicting recreational harvest in a subsequent year (Appendix D). The result of these analyses indicates that it is highly unlikely that the Black Grouper Complex recreational ACL will be exceeded. It appears unlikely that **Preferred Alternative 2** could be triggered in a year following high observed landings that are also highly uncertain [a percent standard error (PSE) > 50%], since the complex ACL was

never exceeded in any simulation run. A few simulations using higher PSE values did result in some annual landings (0.01 – 1.8%) above the recreational ACL value considered in Action 2, Preferred Alternative 2, but the complex ACL was never exceeded.

For **Alternative 3**, no simulated annual landings estimated at any PSE value exceeded the complex ACL. Additionally, the predictive analysis indicated use of a 3-year average approach may not provide any improved harvest forecasting ability in managing the Black Grouper Complex to an ACL. Managing with a 3-year average impose recreational closures and thus reduced fishing effort in years well after higher landings have been observed. However, the simulation analysis does not indicate that **Alternative 3** would result in triggering a recreational AM because historical Black Grouper Complex landings are substantially lower than the complex ACL considered in Action 2, Preferred Alternative 2.

2.4 Action 4: Establish MSY, OY, and SDC for the Scamp Complex

Alternative 1: No Action – Do not establish MSY, MFMT, MSST, or OY for the new Scamp Complex established in Action 1.

Preferred Alternative 2: Establish the MSY proxy, MFMT, MSST, and OY for the Scamp Complex based on the SSC recommendations of the yield when fishing at $F_{40\%SPR}$:

Criteria Type	Proxy
MSY	yield at $F_{40\%SPR}$
MFMT	F_{MSY}
MSST	75% of B_{MSY}
OY	90% of MSY

Discussion:

Alternative 1 (No Action) would not establish SDC (i.e. MFMT or MSST), MSY, OY, or catch limits for the Scamp Complex (scamp/yellowmouth grouper, if selected in Action 1). This is not consistent with the requirements of the Magnuson-Stevens Act and is therefore not a viable alternative.

Scamp and yellowmouth grouper were assessed together in SEDAR 68. The Council’s SSC recommended setting an MSY proxy for the Scamp Complex at the yield when fishing at $F_{40\%SPR}$. **Preferred Alternative 2** reflects this recommendation, and would set the MFMT equal to the fishing mortality at the MSY proxy of $F_{40\%SPR}$.

In **Preferred Alternative 2**, the MSST for the Scamp Complex would be set at 75% of B_{MSY} . The same rationale used for Preferred Alternative 2 in Action 3 was used in setting this value (i.e. Porch *et al.* 2016 discussion; Section 2.2). Amendment 48 set OY for the Other SWG complex at 90% of MSY or the MSY proxy, and the OY for the Scamp Complex would be set at 90% of MSY in **Preferred Alternative 2**.

2.5 Action 5: Establish Catch Limits and Sector Allocations for the Scamp Complex

Note: The OFL and ABC are based on the SSC's recommendations from updated catch projections received in May 2025 using the SEDAR 68 (2022) assessment model for 2027-2031. Catch limits, in gutted weight (gw), are inclusive of and would be monitored using estimates from MRIP-FES. The OFL, ABC, and ACLs are based on the F_{MSY} proxy of the yield when fishing at $F_{40\%SPR}$.

Alternative 1: No Action – Do not establish catch limits for the new Scamp Complex as established in Action 1

Preferred Alternative 2: Establish catch limits for the Scamp Complex. The OFL would be set at 233,000 lb gw, and the ABC would be set at 183,000 lb gw. The complex ACL is set equal to the ABC. The complex ACL equals the combined commercial and recreational sector ACLs. Establish sector allocations for the Scamp Complex as follows:

Option 2a: The commercial and recreational allocations for scamp and yellowmouth grouper are based on those established in the Generic ACL/AM Amendment. The commercial sector is allocated 80.1% of the Scamp Complex ACL, and the recreational sector is allocated 19.9%.

Year	Complex ACL	Comm ACL	Rec ACL
2027-2031+	183,000	146,000 [†]	36,417

Preferred Option 2b: The commercial and recreational allocations are based on the proportion of average scamp and yellowmouth grouper landings for 2012-2023 excluding the 2020 COVID year. The commercial sector is allocated 38.6% of the Scamp Complex ACL, and the recreational sector is allocated 61.4%.

Year	Complex ACL	Comm ACL	Rec ACL
2027-2031+	183,000	70,000 [†]	112,362

Option 2c: The commercial and recreational allocations are based on reducing catch limits equally (percentagewise) between the commercial and recreational sectors based on the most recent three years of scamp and yellowmouth grouper landings (i.e., 2021-2023). The commercial sector is allocated 29.7% of the Scamp Complex ACL, and the recreational sector is allocated 70.3%.

Year	Complex ACL	Comm ACL	Rec ACL
2027-2031+	183,000	54,000 [†]	128,649

[†]See Appendix E

Discussion:

Alternative 1 (No Action) would not establish a complex ACL or sector allocations for the Scamp Complex. This would be inconsistent with the requirements of NS 1 of the Magnuson-Stevens Act and is therefore not a viable alternative. **Option 2a, Preferred Option 2b, and Option 2c of Preferred Alternative 2** would establish catch limits and sector allocations for the Scamp Complex. The OFL would be set at 233,000 lb gw, and the ABC would be set at 183,000 lb gw. The complex ACL would be set equal to the ABC, and the recreational sector ACL would be equal to the percentage recreational allocation specified in each alternative multiplied by the complex ACL. The commercial ACL would be equal to the percent allocation specified in each alternative but rounded down to the nearest thousand pounds. This is necessary with the IFQ program to avoid potential overages of the commercial ACL by distributing shares in excess of the commercial ACL. **Option 2a** would establish sector allocations for the Scamp Complex based on the commercial allocation defined in the Generic ACL/AM Amendment (i.e. 80.1%, rounded down to thousand pounds), and would set the recreational allocation at 19.9% of the Scamp Complex ACL. If the Council selects **Option 2a**, then it would result in a *de facto* reallocation from the recreational sector to the commercial sector. This is because the MRIP-FES estimated recreational landings used in the SEDAR 68 stock assessment and resultant catch projections estimate much higher historical recreational landings than MRFSS, which informed recreational harvest and catch limits in the Generic ACL/AM Amendment. **Option 2a** does not account for the change in the recreational survey. Thus, **Option 2a** would reduce recreational sector allowable harvest relative to allowable commercial harvest.

The landings used for establishing the sector allocations in both **Preferred Option 2b** and **Option 2c** are displayed in Table 2.5.1 and methodology for calculated sector-specific ACL is illustrated in Figure 2.5.1. **Preferred Option 2b** would establish sector allocations for the Scamp Complex based on landings for 2012-2023 (since implementation of the Generic ACL/AM Amendment), excluding the 2020 COVID year. This alternative would decrease the commercial sector allocation and increase the recreational sector allocation. Landings from 2020 are not included in this analysis due to abnormal fishing effort for many Gulf species, including scamp and yellowmouth grouper, because of the COVID-19 pandemic. **Preferred 2b** uses a longer reference period in setting the allocation percentages than **Option 2a** or **Option 2c**. Because of this longer time period, **Preferred Option 2b** may not capture short-term trends or recent changes in fishery dynamics, but also may be more appropriate for long-term management than alternatives using shorter reference periods.

Option 2c would establish commercial and recreational allocations for the Scamp Complex by reducing catch limits equally (percentagewise) between the commercial and recreational sectors based on the most recent three years of landings (i.e., 2021-2023). To generate the allocation percentages used in **Option 2c**, the difference between the 3-year average and the newly proposed ACL is divided by the 3-year average to generate a percent difference. The inverse of that percent difference is multiplied by the sector-specific 3-year averages to generate the sector-specific ACLs (Table 2.5.2). A step-by-step calculation procedure used for **Option 2c** is visualized in Figure 2.5.2.

Table 2.5.1. Annual commercial, recreational (MRIP-FES), and total Scamp Complex landings from 2012 – 2023. Sector-specific landings as a percentage are also reported for the time series. These data used are the same as in Table 1.1.2.

Year	Commercial	Recreational	Total	%Commercial	%Recreational
2012	249,826	237,195	487,021	51.3	48.7
2013	243,129	261,809	504,938	48.2	51.8
2014	169,125	264,495	433,620	39.0	61.0
2015	183,154	342,097	525,251	34.9	65.1
2016	285,741	244,715	530,456	53.9	46.1
2017	162,825	193,630	356,455	45.7	54.3
2018	143,047	233,878	376,925	38.0	62.0
2019	114,072	411,764	525,836	21.7	78.3
2020	119,043	380,593	499,636	23.8	76.2
2021	129,982	317,851	447,833	29.0	71.0
2022	122,752	326,023	448,775	27.4	72.6
2023	109,137	211,234	320,371	34.1	65.9
Alt 2. Preferred Option 2b Avg. 2012-2023 landings (no 2020)	Avg. Commercial 173,890	Avg. Recreational 276,790	Avg. Total 450,680	%Commercial 38.6	%Recreational 61.4

Step 1: Calculate Averages

$$\text{Avg. Com} = \frac{\text{Commercial Landings 2012-2023 (no 2020)}}{11} = 173,890 \text{ lbs}$$

$$\text{Avg. Rec} = \frac{\text{Rec Landings 2012-2023 (no 2020)}}{11} = 276,790 \text{ lbs}$$

$$\text{Avg. Total} = \frac{\text{Total Landings 2012-2023 (no 2020)}}{11} = 450,680 \text{ lbs}$$

Step 2: Calculate Percentages

$$\% \text{ Comm} = \left(\frac{173,890}{450,680}\right) * 100 = 38.6 \%$$

$$\% \text{ Rec} = \left(\frac{276,790}{450,680}\right) * 100 = 61.4 \%$$

Step 3: Calculate new sector ACLs

$$\text{Comm ACL} = 183,000 * 0.386 = 70,638 \text{ lbs}$$

$$\text{Rec ACL} = 183,000 * 0.614 = 112,362 \text{ lbs}$$

Step 4: Round comm ACL down for IFQ program

$$\text{Final Comm ACL} = \text{Round } 70,638 \text{ to nearest } 1,000\text{lb} \rightarrow 70,000 \text{ lbs}$$

Figure 2.5.1 Step-by-step methodology for calculating sector-specific ACLs for Action 5 Option 2b. For rationale on commercial rounding; see Appendix E.

Table 2.5.2. Annual commercial, recreational (MRIP-FES), and total Scamp Complex landings from 2012 – 2023. Sector-specific landings as a percentage are also reported for the time series. These data used are the same as in Table 1.1.2.

Year	Commercial	Recreational	Total	%Commercial	%Recreational
2012	249,826	237,195	487,021	51.3	48.7
2013	243,129	261,809	504,938	48.2	51.8
2014	169,125	264,495	433,620	39.0	61.0
2015	183,154	342,097	525,251	34.9	65.1
2016	285,741	244,715	530,456	53.9	46.1
2017	162,825	193,630	356,455	45.7	54.3
2018	143,047	233,878	376,925	38.0	62.0
2019	114,072	411,764	525,836	21.7	78.3
2020	119,043	380,593	499,636	23.8	76.2
2021	129,982	317,851	447,833	29.0	71.0
2022	122,752	326,023	448,775	27.4	72.6
2023	109,137	211,234	320,371	34.1	65.9
Alt 2. Option 2c Avg Total Landings (2021-2023) 405,660	New ACL 183,000	Proportional Difference ~0.55	Inverse of Difference ~0.45	Commercial ACL 54,415	Recreational ACL 128,585

Step 1: Calculate Averages

$$\text{Avg. Com} = \frac{\text{Commercial Landings 2021-2023}}{3} = 120,624 \text{ lbs}$$

$$\text{Avg. Rec} = \frac{\text{Rec Landings 2021-2023}}{3} = 285,036 \text{ lbs}$$

$$\text{Avg. Total} = \frac{\text{Total Landings 2021-2023}}{3} = 405,660 \text{ lbs}$$

Step 2: Calculate Difference between avg total landings & new ACL

$$405,660 - 183,000 = 222,660 \text{ lbs}$$

Step 3: Calculate the proportion of using difference and 3-year total avg.

$$\text{Proportion reduction} = \frac{222,660}{405,660} = 0.5488829$$

$$\text{Inverse of proportion reduction} = 1 - 0.5488829 = 0.4511171$$

Step 4: Apply proportion reduction equally to each sector avg landings

$$\text{Comm ACL} = 120,624 * 0.4511171 = 54,415 \text{ lbs}$$

$$\text{Rec ACL} = 285,036 * 0.4511171 = \mathbf{128,585 \text{ lbs}}$$

Step 5: Round comm ACL down for IFQ program

$$\text{Final Comm ACL} = \text{Round } 54,415 \text{ to nearest } 1,000\text{lb} \rightarrow \mathbf{54,000 \text{ lbs}}$$

Figure 2.5.2 Step-by-step methodology for calculating sector-specific ACLs for Action 5 Option 2c. For rationale on commercial rounding; see Appendix E.

2.6 Action 6: Establish a Recreational Annual Catch Target (ACT) for the Scamp Complex

Alternative 1: No Action – Do not establish a recreational ACT for the Scamp Complex.

Preferred Alternative 2: Establish a recreational ACT for the Scamp Complex by applying the Council’s ACL/ACT Control Rule and considering scamp and yellowmouth grouper a single stock. Use landings data from 2019 – 2023, excluding the 2020 COVID year. The ACT would be set at 14% below the recreational ACL.

Alternative 3: Establish a recreational ACT for the Scamp Complex by applying the Council’s ACL/ACT Control Rule and using scamp as an indicator species for the complex. Use landings data from 2019 – 2023, excluding the 2020 COVID year. The ACT would be set at 18% below the recreational ACL.

Discussion:

Alternative 1 (No Action), which does not consider a recreational ACT and thus does not account for additional management uncertainty, could be problematic for the Scamp Complex. SEDAR 68 indicated that a substantial reduction (~58%) in harvest of scamp and yellowmouth grouper was warranted for the stability of those stocks. The creation of a new complex inherently generates management uncertainty as there is no historical management established. As a result, the inclusion of an ACT can reduce the likelihood of overfishing the complex if that ACT is used to monitor harvest and trigger an accountability measure.

Preferred Alternative 2 and **Alternative 3** would apply the Council’s ACL/ACT Control Rule (Appendix B) to calculate a buffer between the ACL and ACT, and would use landings data from 2019-2023, excluding the 2020 COVID year. **Preferred Alternative 2** would consider scamp and yellowmouth grouper as a single stock in the ACL/ACT Control Rule and results in a 14% buffer between the ACL and ACT (Figure B1). **Alternative 3** would use scamp as an indicator species for the Scamp Complex resulting in an 18% buffer between the ACL and ACT (Figure B2). The resulting recreational ACT for **Preferred Alternative 2** and **Alternative 3** in 2.6.1.

Table 2.6.1. Scamp Complex recreational ACT based on ACL options in Action 5 Alternative 2.

Year	Action 5, Alt. 2 Options	Rec ACL	Preferred Action 6, Alt. 2 ACT	Action 6, Alt. 3 ACT
2027+	Option 2a	36,417	31,319	29,862
2027+	Preferred Option 2b	112,362	96,631	92,137
2027+	Option 2c	128,649	110,583	105,440

More scientific uncertainty is assumed when an indicator species is used for a species assemblage as differences in the fishing effort between species, life history traits, and other management considerations are unknown. Therefore, using a species as an indicator for managing one or more other species in a complex is inherently more uncertain than considering a single stock. This results in **Alternative 3** having a larger buffer relative to **Preferred Alternative 2**. SEDAR 68 assessed Gulf scamp and yellowmouth grouper together as a single complex due to difficulties in differentiating between the species. **Preferred Alternative 2** includes scamp and yellowmouth grouper as a single complex in the ACL/ACT Control Rule, consistent with the most recent SEDAR 68 stock assessment.

2.7 Action 7: Establish a Recreational Fixed Closed Season, Recreational Sector AMs, and a Recreational Payback Provision for the Scamp Complex

2.7.1 Action 7.1: Establish a Recreational Fixed Closed Season and Recreational Sector AMs for the Scamp Complex

Alternative 1: No Action – Do not establish a fixed closed season for the recreational sector and do not establish recreational sector AMs for the Scamp Complex. The Scamp Complex would be open to harvest by the recreational sector from January 1 through December 31 each year.

Alternative 2: Establish a fixed closed season for the recreational sector for the Scamp Complex. The Scamp Complex would be closed from January through May each year (open on June 1 until December 31). A recreational sector season closure would be implemented for the Scamp Complex when NMFS projects the recreational ACT (established in Action 6) is met.

Preferred Alternative 3: Establish a fixed closed season for the recreational sector for the Scamp Complex. The Scamp Complex would be closed from January through June each year (open on July 1 until December 31). A recreational sector season closure would be implemented for the Scamp Complex when NMFS projects the recreational ACT (established in Action 6) is met.

Discussion:

The Council recently (June 2025) took final action on a framework action to implement a recreational fixed closed season from January 1 through June 30 (July 1 start date) for the Other SWG complex (GFMC 2025). The Council acknowledged that although a shorter season would result, it was necessary to implement the fixed closed season in order to constrain recreational landings and avoid exceeding the Other SWG complex ACL. The Council supported beginning the season on either June 1 or July 1 because it would still allow recreational access to the fishery when the highest recreational fishing effort is observed (May-August; Table C1) and would limit regulatory discards of Other SWG species during these high effort times. Similarly, potential season start dates in June and July are considered in this amendment for the new Scamp Complex.

Alternative 1 (No Action) would not establish a fixed closed season or allow for an early season closure. Given the substantial reduction in harvest required to avoid overharvest of scamp and yellowmouth grouper (as calculated from SEDAR 68), it is unlikely those harvest targets would be achieved without a fixed recreational closed season. **Alternative 2** and **Preferred Alternative 3** would consider a recreational fixed closed season. For **Alternative 2** and **Preferred Alternative 3**, the opening dates for the fishing season would be June 1 and July 1, respectively.

Scamp Complex season duration analysis

Two recreational season duration analyses have been generated (Appendix C). The first incorporates the last three years of Scamp Complex recreational landings data from 2022-2024 (Table 2.7.1.1). The other includes the years 2023 and 2024 (Table 2.7.1.2). The rationale for only including the two most recent years in the other analysis is because it is likely that relatively high Scamp Complex landings in September and October since 2023 are a result of modifications to the gag recreational fishing season. With the shortened gag season now opening in the fall months, it is likely that increased recreational effort is now occurring during this time period and is contributing to the increased recent landings attributable to Scamp Complex species relative to historical observations. To capture this confounding factor with gag management changes, a Scamp Complex recreational season duration analysis was conducted using an average of only the two most recent years of landings data (Table 2.7.1.2).

Discussion of Scamp Complex season duration analysis (3-year average)

Three years is the minimum time series that can be used to generate an average and standard deviation. A longer time series was not considered because recent changes (within 2 years) to the gag recreational fishing season is likely influencing fishing effort on scamp as well. Therefore, informing the season duration using only three years is mathematically appropriate while also accounting for recent reductions in the gag recreational fishing season.

Recreational harvest of the Scamp Complex varies temporally over the calendar year with relatively higher levels of harvest observed in the months of May-August (Table C1; Appendix C). The lowest level of harvest occurs from November through April and intermediate recreational harvest of scamp occurs September and October [Table C1; Appendix C]). A recent increase in scamp harvest and fishing effort in September and October was observed in 2023 and 2024. This underlying effect results in marked differences in estimated season duration for the three season starting dates considered in this action. Given the decrease in allowable harvest outlined in Actions 5 and 6, both **Alternative 2** and **Preferred Alternative 3** estimate a seasonal closure before the end of the calendar year regardless of start date.

Alternative 1 (No Action) would not result in a closure of the recreational fishing season, and would be expected to result in landings that exceed the recreational ACL, and potentially the complex ACL and OFL. The months of June, July, and August have higher observed Scamp Complex recreational harvest relative to other months of the year (Appendix C); therefore, estimated season duration range is similar between **Alternative 2** and **Preferred Alternative 3**. Additionally, Scamp Complex recreational harvest in August is similar to June and July, but a marked decrease of approximately 50% occurs in September (Appendix C). As a result, there is a lower maximum number of days open for **Alternative 2** (21-80 days) relative to **Preferred Alternative 3** (21-99 days).

Table 2.7.1.1. Results of a Scamp Complex recreational season duration analysis (using a 3-year average) to estimate the number of days the recreational season would be open relative to the possible recreational ACL and ACT (lb gw) considered in Actions 5 and 6, respectively. The estimated season duration (Days Open) is also dependent on the season start date as Scamp Complex harvest varies temporally throughout the calendar year. For Action 7.1, two possible starting dates with a provision to implement an in-season closure for the Scamp Complex are considered: June 1 (**Alternative 2**) and July 1 (**Preferred Alternative 3**).

Action 7.1 Alternative 2: Fishing Season Start Date: June 1				
Action 5 Alternative 2:	Recreational ACL	Action 6, Preferred Alternative 2 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	31,319	Jun 23	22
Preferred Option b	112,362	96,631	Aug 10	70
Option c	128,649	110,583	Aug 20	80
Action 5 Alternative 2:	Recreational ACL	Action 6, Alternative 3 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	29,862	Jun 22	21
Preferred Option b	112,362	92,137	Aug 6	66
Option c	128,649	105,440	Aug 16	76
Action 7.1 Preferred Alternative 3: Fishing Season Start Date: July 1				
Action 5 Alternative 2:	Recreational ACL	Action 6, Preferred Alternative 2 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	31,319	Jul 23	22
Preferred Option b	112,362	96,631	Sep 17	78
Option c	128,649	110,583	Oct 8	99
Action 5 Alternative 2:	Recreational ACL	Action 6, Alternative 3 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	29,862	Jul 22	21
Preferred Option b	112,362	92,137	Sep 10	71
Option c	128,649	105,440	Sep 30	91

Discussion of Scamp Complex season duration analysis (2-year average)

Alternative 1 (No Action) would start the recreational season on January 1 and no fixed closed season or AMs to close the season when the recreational catch limit is harvested would be established. As detailed above, this may result in overfishing of the Scamp Complex.

The months of June through October have similar observed Scamp Complex recreational harvest (Table C1; Appendix C); therefore, estimated season duration ranges between **Alternative 2** and **Preferred Alternative 3** are comparable. As a result, the estimated number of recreational season days open for **Alternative 2** (28-105 days) is similar to **Preferred Alternative 3** (28-110 days).

Table 2.7.1.2. Results of a Scamp Complex recreational season duration analysis (using a 2-year average) to estimate the number of days the recreational season would be open relative to the possible recreational ACL and ACT (lbs gw) considered in Actions 5 and 6, respectively. The estimated season duration (Days Open) is also dependent on the season start date as Scamp Complex harvest varies temporally throughout the calendar year. For Action 7.1, two possible starting dates with a provision to implement an in-season closure for the Scamp Complex are considered: June 1 (**Alternative 2**) and July 1 (**Preferred Alternative 3**).

Action 7.1 Alternative 2: Fishing Season Start Date: June 1				
Action 5 Alternative 2:	Recreational ACL	Action 6, Preferred Alternative 2 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	31,319	Jun 30	29
Preferred Option b	112,362	96,631	Aug 30	90
Option c	128,649	110,583	Sep 14	105
Action 5 Alternative 2:	Recreational ACL	Action 6, Alternative 3 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	29,862	Jun 29	28
Preferred Option b	112,362	92,137	Aug 25	85
Option c	128,649	105,440	Sep 8	99
Action 7.1 Preferred Alternative 3: Fishing Season Start Date: July 1				
Action 5 Alternative 2:	Recreational ACL	Action 6, Preferred Alternative 2 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	31,319	Jul 29	28
Preferred Option b	112,362	96,631	Oct 3	94
Option c	128,649	110,583	Oct 19	110
Action 5 Alternative 2:	Recreational ACL	Action 6, Alternative 3 Proposed Recreational ACT	Projected Closure	Days Open
Option a	36,417	29,862	Jul 28	27
Preferred Option b	112,362	92,137	Sep 28	89
Option c	128,649	105,440	Oct 13	104

Accountability measures

Alternative 1 (No Action) would not establish recreational sector AMs for the Scamp Complex. **Alternative 2** and **Preferred Alternative 3** would close recreational fishing for the Scamp Complex when the recreational ACT is projected to be met. **Alternative 2** and **Preferred Alternative 3** would provide a buffer to decrease the chances of exceeding the recreational ACL by monitoring to the ACT and reduce the probability of overfishing the Scamp Complex. However, **Alternative 2** and **Preferred Alternative 3** can potentially result in less realized harvest by the recreational sector and a subsequently shorter recreational fishing season, as it relies on season projections that are subject to high uncertainty.

2.7.2 Action 7.2: Establish a Recreational Payback Provision for the Scamp Complex

Preferred Alternative 1: No Action - Do not establish a recreational payback provision.

Alternative 2: If recreational Scamp Complex landings exceed the complex recreational ACL in a fishing year and the stock complex is overfished, NMFS would reduce the recreational ACL and ACT for the following fishing year by the amount of the ACL overage in the prior fishing year, unless the best scientific information available determines that a greater, lesser, or no overage adjustment is necessary.

Discussion:

Preferred Alternative 1 (No Action) would not establish a payback provision for the Scamp Complex. **Alternative 2** would establish a payback provision for the recreational sector. In a year following an overharvest of the Scamp Complex recreational ACL and the stock is overfished, NMFS would reduce the recreational ACL and ACT. The ACL and ACT reduction would only remain in effect for one year, provided the newly adjusted ACL is not exceeded in the following year. If the ACL is not exceeded for a second time, then in subsequent years the ACL and ACT would return to the original levels. However, if the adjusted ACL is exceeded in the following year, then the ACL and ACT will be further adjusted in accordance with the alternative. Under the NS 1 guidelines, if catch exceeds the ACL for a given stock or stock complex more than once in four years, the system of ACLs and AMs should be re-evaluated, and modified, if necessary, to improve its performance and effectiveness.

CHAPTER 3. AFFECTED ENVIRONMENT

3.1 Description of the Physical Environment

General Description of the Physical Environment

The physical environment for Gulf of America (Gulf) reef fish is detailed in the Environmental Impact Statement (EIS) for the Generic Essential Fish Habitat (EFH) Amendment (GMFMC 2004), Generic EFH Amendment 3 (GMFMC 2005), and the Generic Annual Catch Limit/Accountability Measure (ACL/AM) Amendment (GMFMC 2011a), which are hereby incorporated by reference and summarized below. More recent information is also included as applicable.

The Gulf has a total area of approximately 600,000 square miles (1.5 million km²), including state waters (Gore 1992). It is a semi-enclosed, oceanic basin connected to the Atlantic Ocean by the Straits of Florida and to the Caribbean Sea by the Yucatan Channel (Figure 3.1.1).

Oceanographic conditions are affected by the Loop Current, discharge of freshwater into the northern Gulf, and a semi-permanent, anti-cyclonic gyre in the western Gulf. The Gulf includes both temperate and tropical waters (McEachran and Fechtelm 2005). Gulf water temperatures range from 54° F to 84° F (12° C to 29° C) depending on time of year and depth of water. Mean annual sea surface temperatures ranged from 73° F through 83° F (23-28° C), including bays and bayous (Figure 3.1.1), between 1982 and 2009, according to satellite-derived measurements (NODC 2011).⁹ In general, mean sea surface temperature increases from north to south with large seasonal variations in shallow waters.

⁹ <http://accession.nodc.noaa.gov/0072888>

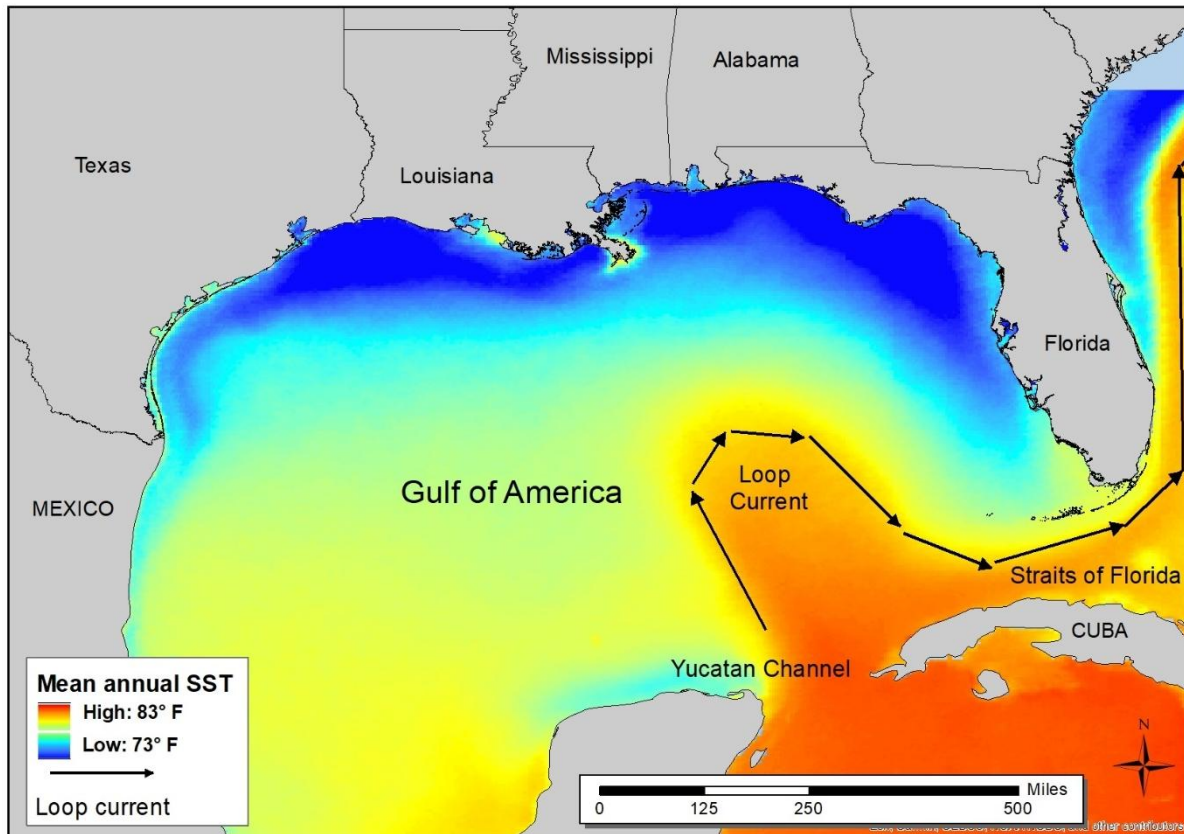


Figure 3.1.1. Mean annual sea surface temperature derived from the Advanced Very High-Resolution Radiometer Pathfinder Version 5 sea surface temperature data set.¹⁰

General Description of the Reef Fish Physical Environment

In general, reef fish are widely distributed in the Gulf, occupying both pelagic and benthic habitats during their life cycle. They generally have a planktonic larval stage that lives in the water column and feeds on zooplankton and phytoplankton (GMFMC 2004). Juvenile and adult reef fish are typically demersal and usually associated with bottom topographies on the continental shelf (less than 100 m [328 ft]) which have high relief, e.g., coral reefs, artificial reefs, rocky hard-bottom substrates, ledges and caves, sloping soft-bottom areas, and limestone outcroppings. However, several species are found over sand and soft-bottom substrates. For example, some juvenile snapper (e.g., mutton, gray, red, dog, lane, and yellowtail snappers) and grouper (e.g., goliath, red, gag, and yellowfin groupers) are associated with inshore seagrass beds, mangrove estuaries, lagoons, and larger bay systems.

Habitat Areas of Particular Concern (HAPC) and Environmental Sites of Special Interest

Detailed information pertaining to HAPCs is provided in Generic Amendment 3 (GMFMC 2005) and Amendment 9 to the Fishery Management Plan for the Coral and Coral Reefs of the Gulf of Mexico, U.S. Waters (GMFMC 2018). Detailed information pertaining to the Gulf area closures

¹⁰

<http://accession.nodc.noaa.gov/0072888>

and marine reserves is provided in Amendment 32 to the Fishery Management Plan for the Reef Fish Resources in the Gulf of Mexico (Reef Fish FMP; GMFMC 2011b). There are environmental sites of special interest that are discussed in the Generic EFH Amendment (GMFMC 2004) that are relevant to reef fish management. These documents are hereby incorporated by reference. A short summary of these areas are included here:

Longline/Buoy Gear Area Closure - Permanent closure to use of these gear types for reef fish harvest. The closure applies to inshore of 20 fathoms off the Florida shelf from September through May, inshore of 35 fathoms off the Florida shelf from June through August, and inshore of 50 fathoms year-round for the remainder of the Gulf (72,300 square nautical miles).

Madison/Swanson and Steamboat Lumps Marine Reserves - No-take marine reserves sited on gag spawning aggregation areas where all fishing is prohibited (219 square nautical miles).

The Edges – No-take area closure from January 1 to April 30. All commercial and recreational fishing or possession of fish managed by the Council is prohibited. The intent of the closure is to protect gag and other groupers during their respective spawning seasons. Possession is allowed when transiting the area if gear is stowed in accordance with federal regulations. The boundaries of the closed area are: Northwest corner = 28° 51'N, 85° 16'W; Northeast corner = 28° 51'N, 85° 04'W; Southwest corner = 28° 14'N, 84° 54'W; Southeast corner = 28° 14'N, 84° 42'W.

Tortugas North and South Marine Reserves - No-take marine reserves cooperatively implemented by the state of Florida, National Ocean Service (NOS), the Council, and the National Park Service (see jurisdiction on chart) (185 square nautical miles). In addition, Generic Amendment 3 for addressing Essential Fish Habitat requirements, Habitat Areas of Particular Concern (HAPC), and adverse effects of fishing prohibited the use of anchors in these HAPCs in the following Fishery Management Plans (FMPs) of the Gulf: Shrimp, Red Drum, Reef Fish, Stone Crab, Coral and Coral Reefs in the Gulf; and Spiny Lobster and the Coastal Migratory Pelagic resources of the Gulf and South Atlantic.

Additionally, Generic Amendment 3 for addressing Essential Fish Habitat requirements establishes an education program on the protection of coral reefs when using various fishing gear in coral reef areas for recreational and commercial fishermen.

Individual reef areas and bank HAPCs of the northwestern Gulf including: East and West Flower Garden Banks, Stetson Bank, Sonnier Bank, MacNeil Bank, 29 Fathom, Rankin Bright Bank, Geyer Bank, McGrail Bank, Bouma Bank, Rezak Sidner Bank, Alderice Bank, and Jakkula Bank - Pristine coral areas protected by preventing use of some fishing gear that interacts with the bottom (263.2 square nautical miles). Subsequently, some of these areas were made a marine sanctuary by NOS and this marine sanctuary is currently being revised. Bottom anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots on coral reefs are prohibited in the East and West Flower Garden Banks, McGrail Bank, and on the significant coral resources on Stetson Bank.

Florida Middle Grounds HAPC - Pristine soft coral area protected from use of any fishing gear interfacing with bottom (348 square nautical miles).

Pulley Ridge HAPC - A portion of the HAPC where deep-water hermatypic coral reefs are found is closed to anchoring and the use of trawling gear, bottom longlines, buoy gear, and all traps/pots (2,300 square nautical miles).

Stressed Areas for Reef Fish - Permanent closure Gulf-wide of the near shore waters to use of fish traps, power heads, and roller trawls (i.e., “rock hopper trawls”) (48,400 square nautical miles).

Alabama Special Management Zone - In the Alabama special management zone, fishing by a vessel operating as a charter vessel or head boat, a vessel that does not have a commercial permit for Gulf reef fish, or a vessel with such a permit fishing for Gulf reef fish, is limited to hook-and-line gear with no more than three hooks. Nonconforming gear is restricted to bag limits, or for reef fish without a bag limit, to 5% by weight of all fish aboard.

Northern Gulf Hypoxic Zone

A large hypoxic zone forms every summer in the northern Gulf. It is the result of allochthonous materials and runoff from agricultural lands resulting in increasing nutrient inputs to multiple rivers. These tributaries feed into the Mississippi River, which disperses to the Gulf, and creates a temperature and salinity dependent layering of waters. The nutrient rich fresh waters from the Mississippi create seasonal, large algal blooms at the surface that eventually die, sink to the bottom, and decompose. This creates the oxygen-poor, hypoxic bottom water layer unless front or storm events occur, which allows for mixing of the layers (Rabalais and Turner 2019). Mapping of the hypoxic zone began in 1985. For 2021, the extent of the hypoxic area was 6,334 square miles, almost triple what it was in 2020 (2,116 square miles), but still less than the extent of the 2017 hypoxic area (8,776 square miles). The changes in hypoxic area can be attributed to changing amounts of river discharge and its associated nutrient load and storm events. The major factor for the reduced size in 2020 was the active storm season with Hurricane Hanna passing right over the zone, allowing for mixing of the waters. The 2021 hypoxia area was higher than the 5-year hypoxic area average (5,408 square miles) and much larger than the 1,930 square mile goal set by the Interagency Mississippi River and Gulf of Mexico Hypoxia Task Force to be reached by 2035.¹¹ The hypoxic conditions in the northern Gulf directly impact less mobile benthic macroinvertebrates (e.g., polychaetes) by influencing density, species richness, and community composition (Baustian and Rabalais 2009; Breitburg et al. 2018). However, more mobile macroinvertebrates and demersal fishes are able to detect lower dissolved oxygen levels and move away from hypoxic conditions. Therefore, these organisms are indirectly affected by limited prey availability and constrained available habitat (Baustian and Rabalais 2009; Craig 2012).

3.2 Description of the Biological/Ecological Environment

The biological environment of the Gulf, including for Other Shallow-Water Grouper (SWG) species, is described in detail in the Generic EFH Amendment (GMFMC 2004) and the Generic ACL/AM Amendment (GMFMC 2011a), which are hereby incorporated by reference and summarized below. More recent information is also included as applicable.

¹¹ <http://gulfhypoxia.net>

SWG Life History Biology

The Other SWG complex includes four grouper species: scamp, yellowmouth grouper, black grouper, and yellowfin grouper. The Other SWG species are assumed to each be single stock units due to a lack of detailed information on stock structure. All four species are protogynous hermaphrodites (SEDAR 68 2022), meaning that they begin life as female and can transition to male at older ages. Generally, eggs and larvae of Other SWG species are thought to be pelagic.

Scamp prefers rocky bottoms and ledges. Juveniles are found around jetties and mangroves. The spawning season occurs from January to June with peaks in March and April; however, the spawning patterns of scamp, much like other species of grouper, is complex (Lowerre-Barbieri et al. 2020). During spawning, males may defend spawning sites. There appears to be a special hierarchy during spawning times, and fish will exhibit several color phases during this time (Kobara et al. 2017). Yellowmouth grouper are difficult to distinguish from scamp at smaller size classes (≤ 16 inches total length; SEDAR 68, 2021) and share many characteristics with scamp in terms of habitat preferences and reproductive biology. Overall, yellowmouth grouper are much less common than scamp in the Gulf.

Black grouper occurs over wrecks, rocky coral reefs, ledges, and moderate to high-relief hard bottom habitat. Juveniles occupy submerged aquatic vegetation and mangroves in shallow water before moving to deeper waters as adults (GMFMC 2004). Yellowfin grouper is relatively rare in the Gulf. Its habitat is comprised of rocky bottoms and coral reefs from the shoreline to mid-shelf depths similar to other grouper species. Juveniles occupy shallow seagrass beds and migrate to deeper depths with age. Spawning occurs from March to August in the Gulf (GMFMC 2004).

Status of the Stock for Other SWG Species

See Chapter 1.1: Background, for more information. In summary, according to SEDAR 68 (2022), scamp and yellowmouth grouper are not overfished or experiencing overfishing as of 2020; the terminal year of information used in the stock assessment and subsequent review by the Scientific and Statistical Committee (SSC). The SSC did provide reduced catch level recommendations and the actions in this document are consistent with those recommendations. In May 2025, the SSC reviewed updated projections for scamp and yellowmouth grouper that included more recent landings and was considerate of the anticipated reductions in harvest associated with the action. The SSC determined that the scamp and yellowmouth grouper abundance has continued to decline and recognized the need both for a harvest reduction and longer-term management measures within this amendment.

The most recent stock assessment for black grouper was completed in 2010 (SEDAR 19) but was not considered adequate for management advice. There is no stock assessment for yellowfin grouper. For the Other SWG complex, harvest has never exceeded the complex ACL. The overfishing and overfished status of the complex is unknown.

Bycatch

The Other SWG complex, which would be split up in this document into the Scamp Complex (scamp, yellowmouth grouper) and the Black Grouper Complex (black grouper, yellowfin grouper), is part of the reef fish fishery, and these species may be captured incidentally while

fishing for other species, especially other groupers and snappers which are known to be captured while targeting Scamp Complex and Black Grouper Complex species. Lane snapper are undergoing overfishing, while both gag and greater amberjack are overfished. The overfished status of the Other SWG complex as a whole, meaning all four species combined, is unknown (National Marine Fisheries Service [NMFS] 4th quarter 2024 Update Summary of Stock Status for non-Federal Strategic Sourcing Initiative [FSSI] stocks).¹² SEDAR 68 (2020), which assessed Gulf scamp and yellowmouth grouper as one stock, found that overfishing was not occurring for these species, and that the stock was not overfished. Minimum size limits are estimated to be the greatest source of regulatory discards for the majority of reef fish species. This likely holds true for Scamp Complex and Black Grouper Complex species, since there are size limits in effect for black grouper (minimum 24 inches), yellowfin grouper (20 inches), and scamp (16 inches). In addition, although there is no size limit for yellowmouth grouper, difficulty in distinguishing this species from scamp (even by experts), especially at smaller sizes, likely leads to frequent discarding of small yellowfin grouper. It should be noted that the Council approved a framework action for the Other SWG complex that would implement a fixed closed season for the Other SWG complex from January through June of each year (open July 1 through December 31) until superseded by this document. The fixed closed season, if implemented by NMFS, is expected to increase Other SWG species discards during the new fixed closed season, and especially when fishing pressure for co-occurring species (e.g. red snapper; red grouper) is highest in May and June.

This amendment would implement lower catch limits for scamp and yellowmouth grouper, and would implement accountability measures that are expected to shorten the recreational DWG fishing season duration (to date, the recreational season has never closed). Although this Amendment would create the new Black Grouper complex, it is not expected to result in substantive changes to fishery dynamics for those targeting black and yellowfin grouper, as those species' catch limits are not being reduced, and haven't been approached in recent years. Also, for the recreational component of the new Scamp Complex, it would set a fixed-closed season and recreational AMs requiring closure when the recreational catch limit is harvested. This is expected to increase Scamp Complex bycatch because it is projected that more of the season would be closed to fishing of these species, and thus any captured scamp or yellowmouth grouper would require discarding. Thus, out of season catch may be a large source of regulatory Scamp Complex discards in the future. The recreational daily bag limit (4-total grouper) can also contribute to bycatch, albeit less substantially than other sources of regulatory discards like a closed season.

Because Scamp Complex and Black Grouper Complex species habitat and fishing grounds overlap with other commonly targeted reef fish species like red grouper, red snapper, and gag, catch (and potentially discards) of DWG complex species while targeting other species, and vice versa, may occur frequently. Interactions with other species such as sea turtles and sea birds are known to occur in general in the reef fish fishery but are minimal (see next section).

Discards of Black Grouper Complex species are not expected to change. However, there is some biological benefit to the DWG complex that outweighs any increases in discards because these

¹² <https://www.fisheries.noaa.gov/national/population-assessments/fishery-stock-status-updates>

measures allow more fish to remain in the water due to the reduced catch limit and an expected reduction in the open fishing season duration. Ultimately, overall mortality of the DWG complex would be expected to be substantially lower under this rule due to the expected reduction in the duration of the recreational fishing season resulting from the reduced catch limits and new accountability measures.

Protected Species and Protected Species Bycatch

The National Marine Fisheries Service (NMFS) manages marine protected species in the Southeast region under the Endangered Species Act (ESA) and the Marine Mammal Protection Act (MMPA). A brief summary of these two laws and more information is available on NMFS Office of Protected Resources website.¹³ ESA-listed species or distinct population segments (DPS) of marine mammals, sea turtles, fish, and corals occur in the exclusive economic zone (EEZ) of the Gulf. There are numerous stocks of marine mammals managed within the Southeast region. All marine mammals in U.S. waters are protected under the MMPA.

The five whale species that may be present in the Gulf (blue, sperm, sei, fin, and Rice's¹⁴) are listed as endangered under the ESA. Rice's whales are the only resident baleen whales in the Gulf. Manatees, listed as threatened under the ESA, also occur in the Gulf and are the only marine mammal species in this area managed by the U.S. Fish and Wildlife Service.

Sea turtles, fish, and corals that are listed as threatened or endangered under the ESA occur in the Gulf. These include the following: five species of sea turtles (Kemp's ridley, loggerhead (Northwest Atlantic Ocean DPS), green, leatherback, and hawksbill); five species of fish (Gulf sturgeon, smalltooth sawfish, Nassau grouper, oceanic whitetip shark, and giant manta ray); and six species of coral (elkhorn, staghorn, lobed star, mountainous star, boulder star, and rough cactus). Critical habitat designated under the ESA for smalltooth sawfish, Gulf sturgeon, and the Northwest Atlantic Ocean DPS of loggerhead sea turtles occur in the Gulf, though only loggerhead critical habitat occurs in federal waters. Critical habitat has been proposed in the Gulf for the North Atlantic DPS of green sea turtles.

The most recent biological opinion (BiOp) for the fishery management plan (FMP) was completed on September 30, 2011. The BiOp determined the operation of the Gulf reef fish fishery managed under the Reef Fish FMP is not likely to adversely affect ESA-listed marine mammals or coral and was not likely to jeopardize the continued existence of sea turtles (loggerhead, Kemp's ridley, green, hawksbill, and leatherback) or smalltooth sawfish. Since issuing the opinion, in memoranda dated September 16, 2014, and October 7, 2014, NMFS concluded that the activities associated with the Reef Fish FMP are not likely to adversely affect critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle DPS and four species of corals (lobed star, mountainous star, boulder star, and rough cactus).

¹³ <https://www.fisheries.noaa.gov/about/office-protected-resources>

¹⁴ The Rice's whale (*Balaenoptera ricei*) was previously classified as the Gulf Bryde's whale but was later identified as morphologically and genetically distinct from other whales under the Bryde's whale complex, warranting classification as a new species of baleen whale living in the Gulf.

On April 6, 2016, NMFS and the U.S. Fish and Wildlife Service published a final rule (81 FR 20057) removing the range-wide and breeding population ESA-listings of the green sea turtle and listing eight DPSs as threatened and three DPSs as endangered. The North Atlantic DPS occurs in the Gulf and are listed as threatened.¹⁵ In addition, on June 29, 2016, NMFS published a final rule (81 FR 42268) listing Nassau grouper as threatened under the ESA. NMFS has reinitiated consultation on the FMP to address these listings. In a memorandum dated September 29, 2016, NMFS determined that fishing under the Reef Fish FMP during the re-initiation period is not likely to jeopardize the continued existence of the North Atlantic and South Atlantic DPSs of green sea turtles or Nassau grouper.

On January 22, 2018, NMFS published a final rule (83 FR 2916) listing the giant manta ray as threatened under the ESA. On January 30, 2018, NMFS published a final rule (83 FR 4153) listing the oceanic whitetip shark as threatened under the ESA. In a memorandum dated March 6, 2018, NMFS revised the request for re-initiation of consultation on the Reef Fish FMP to address the listings of the giant manta ray and oceanic whitetip. In that memorandum, NMFS also determined that fishing under the Reef Fish FMP during the extended re-initiation period will not jeopardize the continued existence of the giant manta ray, oceanic whitetip shark, Nassau grouper, or the North Atlantic and South Atlantic DPSs of green sea turtles.

NMFS published a final rule on April 15, 2019, listing the Gulf Bryde's whale (now Rice's whale, see footnote 9 above) as endangered. In a memorandum dated June 20, 2019, NMFS revised the re-initiation request to include the Gulf Bryde's whale (Rice's whale) and determined that fishing under the Reef Fish FMP during the re-initiation period will not jeopardize the continued existence of any of the newly listed species discussed above.¹⁶

There is no information to indicate marine mammals and birds rely on Other SWG species for food, and they are not generally caught by fishermen harvesting Other SWG species. The primary gear in the Gulf reef fish fishery used to harvest Other SWG species is hook-and-line and bottom longlines. These gear types are classified in the 2025 Marine Mammal Protection Act Proposed List of Fisheries as a Category III fishery (89 FR 77789; September 24, 2024), meaning the annual mortality and serious injury of a marine mammal resulting from the fishery is less than or equal to 1% of the maximum number of animals, not including natural mortalities, that may be removed from a marine mammal stock while allowing that stock to reach or maintain its optimum sustainable population. Dolphins are the only species documented as interacting with the reef fish fishery. Bottlenose dolphin prey upon bait, catch, and/or discarded fish from the reef fish fishery. Additionally, there is no evidence that the Other SWG portion of the reef fish fishery as a whole is adversely affecting seabirds.

Deepwater Horizon MC252 Oil Spill

The presence of polycyclic aromatic hydrocarbons (PAH), which are highly toxic chemicals that tend to persist in the environment for long periods of time, in marine environments can have

¹⁵ Limited information previously indicated that benthic juveniles from both the North Atlantic and South Atlantic DPSs may be found in waters off the mainland United States. However, additional research indicates that juveniles from the South Atlantic DPS are not likely to occur in these waters, including the Gulf.

¹⁶ The official change to the name has no effect on NMFS's conclusion that the activities associated with the Reef Fish FMP will not jeopardize the continued existence of the species during the revised reinitiation period.

detrimental impacts on marine finfish, especially during the more vulnerable larval stage of development (Whitehead et al. 2012). The future reproductive success of fish species may be negatively affected by episodic events resulting in high-mortality years or low recruitment. These episodic events could leave gaps in the age structure of the population, thereby affecting future reproductive output (Mendelssohn et al. 2012). Other studies have described the vulnerabilities of various marine finfish species, with morphological and/or life history characteristics similar to species found in the Gulf, to oil spills and dispersants (Hose et al. 1996; Carls et al. 1999; Heintz et al. 1999; Short 2003).

In addition to the crude oil, over a million gallons of the dispersant, Corexit 9500A®, was applied to the ocean surface and an additional hundreds of thousands of gallons of dispersant was pumped to the mile-deep wellhead (National Commission 2010). No large-scale applications of dispersants in deep water had been conducted until the *Deepwater Horizon* MC252 oil spill. Thus, no data exist on the environmental fate of dispersants in deep water. Twenty-first century dispersant applications are thought to be less harmful than their predecessors. However, the combination of oil and dispersants has proven to be more toxic to marine fishes than either dispersants or crude oil alone. Marine fish which are more active (e.g., a pelagic species versus a demersal species) appear to be more susceptible to negative effects from interactions with weathered oil/dispersant emulsions. These effects can include mobility impairment and inhibited respiration (Swedmark et al. 1973). The effect of oil, dispersants, and the combination of oil and dispersants on fishes of the Gulf remains an area of concern. More information about the *Deepwater Horizon* MC252 oil spill is available on the NOAA Southeast Regional Office (SERO) website.¹⁷

¹⁷ <https://www.fisheries.noaa.gov/news/deepwater-horizon-10-years-later-10-questions>
<https://www.fisheries.noaa.gov/news/deepwater-horizon-10-years-later-10-questions>

3.3 Description of the Economic Environment

3.3.1 Commercial Sector

Any fishing vessel that harvests and sells any of the reef fish species managed under the Reef Fish FMP from the Gulf EEZ must have a valid Gulf reef fish permit. As of July 8, 2021, there were 825 limited access valid or renewable reef fish permits (SERO Permits Database, May 2022). Note more recent permit information is currently unavailable. To harvest Other SWG, a vessel permit must also be linked to an individual fishing quota (IFQ) account and possess sufficient allocation for these species. IFQ accounts can be opened and valid permits can be linked to IFQ accounts at any time during the year. Eligible vessels can receive Other SWG allocation from other IFQ participants. On average from 2020 through 2024, there were 688 IFQ accounts that held Other SWG allocation and 70% of those held Other SWG shares (NMFS 2025).

Although many fishing businesses only own one permitted vessel, some hold or own multiple permits and vessels. Detailed discussions on the business composition of IFQ participants are provided in the description of the economic environment sections of the 2016 gag and black grouper Framework Action to modify Gulf gag's minimum size limits and recreational season and black grouper's minimum size limit (GMFMC 2016), as well as Amendment 53 (GMFMC 2021b), and are incorporated herein by reference. All dollar values in this section are adjusted for inflation into 2024 dollars using the GDP implicit price deflator provided by the BEA¹⁸.

Commercial harvest of reef fish in the EEZ may only be sold to dealers with a federal dealer permit. As of December 21, 2021, there were 341 entities with a federal Gulf and South Atlantic Dealers (GSAD) permit (J. Dudley, NMFS SERO, pers. comm. 2022). In order to purchase IFQ species, including Other SWG, dealers are also required to have a Gulf IFQ dealer account and the IFQ dealer endorsement. As of July 22, 2022, there were 166 eligible IFQ dealers; however, the total number of dealers can vary over the course of the year and from year to year.

Vessels, Landings, and Dockside Revenue

As shown in Table 3.3.1.1, the number of vessels that harvested SWG declined from 2020 to 2022, however, vessel participation increased slightly in both 2023 and 2024. The total number of vessels decreased by approximately 6.3% during this timeframe, from 315 to 295. Revenue specifically from SWG experienced significant volatility. Overall, SWG revenue declined by 3.1% on average annually during this timeframe. However, the average revenue per vessel increased by 14.1% over the same period. Other IFQ species comprised the majority of revenue for SWG vessels, averaging over \$59.7 million annually and peaking at over \$63 million in 2023. This suggests that there is little financial dependency on SWG.

¹⁸ <https://www.bea.gov/data/prices-inflation/gdp-price-deflator>

Table 3.3.1.1. Landings statistics for vessels harvesting Gulf Other SWG (pounds are in gutted weight [gw]). *

YEAR	# of Vessels	SWG landings in pounds (lbs) gutted weight (gw)	SWG ex-vessel revenue	Other IFQ species ex-vessel revenue	Gulf Non-IFQ species ex-vessel revenue	South Atlantic all species ex-vessel revenue	Average Revenue per Vessel
2020	315	164,072	\$1,068,950	\$55,772,423	\$6,144,096	\$201,571	\$200,594
2021	297	187,412	\$1,254,106	\$59,624,380	\$6,060,938	\$478,534	\$226,996
2022	290	167,314	\$1,189,343	\$60,823,467	\$6,599,515	\$684,514	\$238,955
2023	292	173,156	\$1,260,467	\$63,017,329	\$7,261,782	\$412,214	\$246,410
2024	295	121,589	\$874,831	\$59,430,343	\$6,580,855	\$632,259	\$228,876
Average	298	162,709	\$1,129,539	\$59,733,588	\$6,529,437	\$481,819	\$228,366

NMFS SERO IFQ database (accessed 5/1/2024) and Southeast Fisheries Science Center (SEFSC) Socioeconomic Panel (January 2025 version).

* Excludes vessels that only landed warsaw grouper and speckled hind landed using SWG quota under the DWG/SWG flexibility measures established in Amendment 29 to the Reef Fish FMP (GMFMC 2009).

The following section discusses vessels, landings, and revenue metrics for vessels that landed scamp or yellowmouth grouper and then separately for vessels that only landed black grouper or yellowfin. The creation of these two new complexes will likely result in a reduction in scamp landings relative to the status quo (average historical landings are greater than proposed commercial ACL in Preferred Alternative 2), but the black grouper commercial ACL is expected to be set at a higher amount than historical average landings. Thus, it is necessary to discuss vessels that harvested scamp separately from vessels that only landed black grouper as those vessels would likely be unaffected.

The information in Table 3.3.1.2 describes the landings and revenue for vessels that harvested scamp or yellowmouth grouper (under the Gulf Other SWG quota) from 2020 through 2024. The information in Table 3.3.1.3 describes the landings and revenue for vessels that only landed black grouper or yellowfin grouper (under the Gulf Other SWG quota) from 2020 through 2024. The information in Table 3.3.1.2 and 3.3.1.3 also contain these vessels' revenue from other Gulf IFQ species, Gulf non-IFQ fisheries, and South Atlantic fisheries.

As shown in Table 3.3.1.2 the number of vessels that landed Gulf yellowmouth grouper declined from 2020 to 2023, however, vessel participation increased slightly 2024. Overall, the number of vessels decreased by approximately 5.1% from 277 to 263 vessels. Revenue specifically from yellowmouth grouper and scamp has been variable from year to year, with a high of \$850,555 in 2022 and a low of \$540,902 in the following year of 2024. The average revenue per vessel increased by 11.4% over the same period. The maximum annual revenue by a single vessel that landed Gulf yellowmouth grouper or scamp was \$349,696 in 2024. Other IFQ species comprised the vast majority of revenue for these vessels (88%), averaging over \$56 million annually and reaching a high of over \$57.5 million in 2021. This suggests that while Gulf

yellowmouth grouper and scamp provide a steady contribution, there is relatively little financial dependency on Other SWG species compared to other Gulf IFQ species.

Table 3.3.1.2. Landings statistics for vessels harvesting Gulf yellowmouth grouper or scamp (pounds are in gutted weight [gw]). *

Year	# of Vessels	Yellowmouth & Scamp Revenue	Yellowmouth & Scamp Landings	Other IFQ species ex-vessel revenue	Gulf Non-IFQ species ex-vessel revenue	South Atlantic all species ex-vessel revenue	Average Revenue per Vessel
2020	277	\$720,518	108,389	\$52,900,156	\$5,155,457	\$83,704	\$213,295
2021	267	\$840,295	122,054	\$57,543,249	\$5,422,799	\$146,079	\$240,467
2022	262	\$850,555	118,537	\$59,528,102	\$5,829,777	\$197,155	\$254,316
2023	258	\$707,836	97,222	\$59,323,539	\$6,473,306	\$314,920	\$259,993
2024	263	\$540,902	74,462	\$55,042,875	\$6,163,905	\$557,627	\$237,701
Average	265	\$732,021	104,133	\$56,867,584	\$5,809,049	\$259,897	\$241,154

NMFS SERO IFQ database (accessed 5/1/2024) and Southeast Fisheries Science Center (SEFSC) Socioeconomic Panel (January 2025 version).

As shown in table 3.3.1.3, the number of vessels that landed only Gulf yellowfin and black grouper (under the Gulf Other SWG quota) declined from 2020-2022 but increased slightly in 2023 before declining again in 2024. The total number of vessels decreased by approximately 15.8% over this five-year period. Revenue specifically from Gulf yellowfin and black grouper experienced high volatility during this timeframe. Overall Gulf yellowfin and black grouper revenue increased by 18.5% on average annually during this timeframe. The average revenue per vessel increased by 44.5% over the same period. The maximum annual revenue by a single vessel that landed Gulf yellowmouth grouper or scamp was \$ 318,596 in 2022. Gulf other IFQ species on average annually comprised 73% of the total revenue for these vessels, and Gulf non-IFQ species comprised 18%. This suggests that there is little financial dependency on Gulf yellowfin and black grouper compared to both other IFQ and non-IFQ species categories.

Table 3.3.1.3. Landings and revenue statistics for vessels only harvesting Gulf yellowfin or black grouper (2024 dollars).

Year	# of Vessels	Yellowfin & Black Grouper Revenue	Yellowfin & Black Grouper Landings	Other IFQ species ex-vessel revenue	Gulf Non-IFQ species ex-vessel revenue	South Atlantic all species ex-vessel revenue	Average Revenue per Vessel
2020	38	\$88,377	12,914	\$2,877,537	\$989,220	\$117,886	\$108,165
2021	30	\$106,137	15,732	\$2,094,515	\$639,499	\$332,563	\$107,615
2022	28	\$74,942	10,308	\$1,297,604	\$769,981	\$487,384	\$95,312
2023	34	\$184,104	23,680	\$3,694,378	\$788,544	\$97,298	\$143,356
2024	32	\$69,368	9,133	\$4,387,467	\$416,950	\$74,632	\$156,340
Average	32	\$104,586	14,353	\$2,870,300	\$720,839	\$221,953	\$122,158

NMFS SERO IFQ database (accessed 5/1/2024) and Southeast Fisheries Science Center (SEFSC) Socioeconomic Panel (January 2025 version).

IFQ Share Transfer, IFQ Allocation Transfer, and Ex-vessel Prices

Price information is important for evaluating the performance of a catch share program. Theoretically, allocation prices should reflect the expected annual profit from harvesting one unit of quota; whereas, share prices should reflect the net present value of the expected profit from harvesting one unit of quota in the long-run. Dockside or ex-vessel price is the price the vessel receives at the first sale of harvest. Average share transfer¹⁹ prices fluctuated from 2020 through 2024; whereas, allocation transfer prices remained relatively flat (Table 3.3.1.3). The average ex-vessel price increased by 10% overall during this period; the average allocation transfer price decreased by 4%; and the average share price decreased by 25%.

Table 3.3.1.4. Average SWG share transfer, allocation transfer, and ex-vessel prices per pound-gutted weight in 2024 dollars.

Year	Share Transfer	Allocation Transfer	Ex-Vessel
2020	\$6.04	\$0.68	\$6.57
2021	\$6.39	\$0.67	\$6.73
2022	\$6.41	\$0.72	\$7.17
2023	\$5.58	\$0.69	\$7.31
2024	\$4.56	\$0.65	\$7.23

Source: NMFS (2025).

¹⁹ Share transfer price refers to the price paid to purchase a share percentage that equates to one pound of SWG allocation at the time the transfer occurs (NMFS 2025).

Economic Value

Estimates of economic returns for vessels that harvested SWG during 2020-2024 are provided by Liese (2023).²⁰ Liese (2023) generated annual vessel-level estimates of costs (as a percentage of revenue) and net revenue from operations for vessels that harvested “Other Shallow Water Groupers” in the Gulf. Estimates of producer surplus (PS) can be calculated from the cost information contained in Liese (2023) in conjunction with estimates of annual revenue from the SERO IFQ database and the SEFSC Social Science Research Group (SSRG) Socioeconomic Panel. PS is total annual revenue minus variable costs, including the costs for fuel, other supplies, and hired crew, as well as the opportunity cost of an owner’s time as captain. Net revenue from operations, which most closely represents economic profits to the owner(s), is total annual revenue minus variable and fixed costs, including the costs for fuel, other supplies, hired crew, vessel repair and maintenance, insurance, and overhead, as well as the opportunity cost of an owner’s time as captain and the vessel’s depreciation. According to Liese (2023), PS for commercial vessels that harvested Gulf SWG was approximately 51.7% of their annual gross revenue, on average, from 2014 through 2018. Net revenue from operations was 34.8% of their annual gross revenue, on average, during this period. Applying these percentages to the results provided in Table 3.3.1.1 would result in an estimated per vessel average annual PS of \$118,169 (2024 dollars) and an average annual net revenue from operations of \$79,312 per year. Liese (2023) also provides annual trip-level estimates of costs (as a percentage of trip revenue) and trip net revenue for vessels that harvested snappers and groupers in the South Atlantic. According to Liese (2023), labor, including both hired and owner’s time, consumed 34.7% of trip revenue and fuel and supplies consumed 16.9%, leaving a trip net revenue margin of 48.4%, on average, from 2014 through 2018.

Dealers

The information in Table 3.3.1.5 illustrates the purchasing activities of dealers that bought Other SWG landed from vessels during 2019 through 2023.²¹ Like vessels, dealer participation in the Other SWG IFQ program is fluid, and not all dealers purchased SWG in each year during this time. On average, from 2019 through 2023, IFQ purchases comprised 47% of all purchases made by these dealers, with Other SWG species, in particular, accounting for less than a percent of total purchases. The average annual value of total purchases by these dealers trended upwards during the period, with a dip in 2020 only (Table 3.3.1.3). Although not shown in the table, the maximum annual value of all purchases made by a single dealer from 2019 through 2023 was approximately \$15 million (2024 dollars) in 2023.

²⁰ This report is available: <https://repository.library.noaa.gov/view/noaa/56480>

²¹ Dealer data for the year 2024 are currently unavailable.

Table 3.3.1.5. Purchase statistics for dealers that bought Gulf Other SWG (2024 dollars).

Year	Number of Dealers	Other SWG Purchases	Other IFQ Purchases	Gulf Non-IFQ Purchases	South Atlantic Purchases	Average total purchases per dealer
2019	93	\$1,226,774	\$70,993,635	\$67,162,140	\$30,302,055	\$1,824,566
2020	88	\$1,143,538	\$67,113,634	\$49,600,994	\$19,832,843	\$1,564,670
2021	81	\$1,240,558	\$70,762,653	\$62,602,949	\$16,267,955	\$1,862,643
2022	75	\$1,161,237	\$65,500,930	\$54,296,437	\$21,449,435	\$1,898,774
2023	69	\$1,111,686	\$64,804,075	\$45,044,803	\$20,366,452	\$1,903,290

Source: SEFSC Fishing Communities Web Query Tool (Version Feb 11, 2025 Years: 2014-2023).

Keithly and Wang (2018) estimated the mark-ups between the ex-vessel price and the dealer sales price for red snapper, dolphin, red grouper, and an “Other Groupers” category. However, those estimates are insufficient to estimate PS or profit for Other SWG dealers, or changes to such as a result of regulatory changes, in part because costs other than the raw fish costs (which are equivalent to the ex-vessel value) are not taken into account. Further, Keithly and Wang’s (2018) category for “Other Groupers” includes black grouper, gag grouper, yellowedge grouper, and warsaw grouper. Therefore, the “other groupers” category is likely not a suitable proxy for Other SWG. NMFS does not possess estimates of operating costs for Other SWG dealers or seafood dealers more broadly, therefore, is not able to estimate profit, net cash flow, net revenue from operations, or PS for dealers as estimated for commercial vessels. However, it is likely that the harvest of Other SWG generates some PS and profit for Other SWG dealers. Further, because of federal dealers’ ability to switch to purchasing other species, changes to those values because of the management measures considered in this amendment are likely to be relatively small. Subsequently, any additional PS and profit generated from Other SWG sales further up the distribution chain to wholesalers/distributors, grocers, and restaurants is likely minimal, given the vast number of seafood and other products they handle and their even greater ability to shift to purchasing other products.

Imports

Imports of foreign seafood products compete within the domestic seafood market, and in the U.S., imports dominate many segments of that market. Imports also tend to be price setters (products that are able to set prices in a market, due to the influence of having a majority of market share). Seafood imports can have downstream effects on the local fish market. At the harvest level, imports can affect ex-vessel prices fishermen receive for landings. As substitutes to domestic production, imports tend to cushion the adverse economic effects on consumers resulting from a reduction in domestic landings. Imports that directly compete with domestic reef fish, including Gulf Other SWG species, are described in this section.

Groupers

According to NMFS' foreign trade data,²² grouper are not exported. Imports of fresh and frozen grouper products, which also directly compete with domestic harvest of Gulf reef fish species, are described in this section. As shown in Table 3.3.1.6, imports of fresh grouper products peaked in 2023. Total value of fresh grouper imports has been increasing in recent years and averaged \$63.1 million (2024 dollars) annually. The average price per pound (lb) product weight (pw) for fresh grouper products was \$5.32 from 2020-2024. Although not shown in the table, these products primarily originated from Mexico, Brazil, and Panama from 2020-2024.

Table 3.3.1.6. Annual pounds and value of fresh grouper imports 2020-2024.

Year	Total Pounds (lbs.)	Total Value	Price per Pound (\$/lbs.)
2020	10,449,994	\$46,394,887	\$4.43
2021	12,246,904	\$65,449,667	\$5.34
2022	11,700,388	\$66,946,463	\$5.72
2023	12,628,176	\$68,236,890	\$5.41
2024	11,995,196	\$68,346,048	\$5.70
Average	11,804,132	\$63,074,791	\$5.32

Source: NOAA Foreign Trade Query Tool, accessed 10/20/24.

As shown in Table 3.3.1.7, imports of frozen grouper products peaked at 2.2 million lb pw in 2021 and have been declining since. Total revenue from frozen grouper increased sharply from \$1.7 to \$5.8 million from 2020 to 2021, but also declined nearly as sharply in 2022 to \$2.9 million. The average price per lb pw for frozen grouper products was \$2.30 from 2020-2024. Although not shown in the table, imports of frozen grouper products primarily originated in Brazil, Suriname, and Indonesia from 2020-2024.

²² <https://www.fisheries.noaa.gov/foss/>

Table 3.3.1.7. Annual pounds and value of frozen grouper imports and share of imports by country, 2020-2024.

Year	Total Pounds (lbs.)	Total Value	Price per Pound (\$/lbs.)
2020	814,426	\$1,718,333	\$2.10
2021	2,190,003	\$5,818,759	\$2.66
2022	1,339,501	\$2,942,717	\$2.20
2023	1,154,097	\$2,676,394	\$2.31
2024	1,097,656	\$2,459,846	\$2.24
Average	1,319,137	\$3,123,210	\$2.30

Source: NOAA Foreign Trade Query Tool, accessed 08/18/24.

Snappers

Imports of fresh and frozen snapper products, which directly compete with domestic harvest of Gulf reef fish species are described in this section. As shown in Table 3.3.1.8, imports of fresh snapper products were 32.4 million lb pw in 2020. They peaked at 36.0 million lb pw in 2021. Total revenue from snapper imports increased to a five-year high of \$169 million in 2021 (2024 dollars). The average price per pound for fresh snapper products was \$4.48 from 2020-2024 and prices varied over this period. Although not shown in the table, imports of fresh snapper products primarily originated in Mexico, Nicaragua, or Panama from 2020-2024.

Table 3.3.1.8. Annual pounds and value of fresh snapper imports and share of imports by country, 2020-2024. All monetary estimates are in 2024\$.

Year	Total Pounds (lbs.)	Total Value	Price per Pound (\$/lbs.)
2020	32,394,316	\$129,401,869	\$3.99
2021	35,969,857	\$169,002,918	\$4.70
2022	32,180,318	\$150,937,686	\$4.69
2023	32,108,363	\$142,592,355	\$4.44
2024	30,474,645	\$139,494,605	\$4.58
Average	32,625,500	\$146,285,887	\$4.48

Source: NOAA Foreign Trade Query Tool, accessed 10/20/24.

As shown in Table 3.3.1.9, total revenue from imports of frozen snapper increased from \$55.2 million (2024 dollars) in 2020 to a five-year high of \$75.7 million in 2021 (2024 dollars) followed by a 40% decrease through 2023. The average price per pound for frozen snapper products was \$3.86, with a notable decrease from 2022 to 2023. Although not shown in the table, imports of frozen snapper product primarily originated in Brazil or Suriname, from 2020-2024.

Table 3.3.1.9. Annual pounds and value of frozen snapper imports and share of imports by country, 2020-2024.

Year	Total Pounds (lbs.)	Total Value	Price per Pound (\$/lbs.)
2020	15,873,809	\$55,208,728	\$3.48
2021	18,224,848	\$75,715,262	\$4.15
2022	16,941,442	\$70,812,484	\$4.18
2023	11,701,409	\$42,501,474	\$3.64
2024	14,836,601	\$57,206,691	\$3.86
Average	15,515,622	\$60,288,928	\$3.86

Source: NOAA Foreign Trade Query Tool, accessed 10/20/24.

Business Activity

The commercial harvest and subsequent sales and consumption of fish generates business activity as fishermen expend funds to harvest the fish and consumers spend money on goods and services, such as grouper purchased at a local fish market and served during restaurant visits. These expenditures spur additional business activity in the region(s) where the harvest and purchases are made, such as jobs in local fish markets, grocers, restaurants, and fishing supply establishments. In the absence of the availability of a given species for purchase, consumers would spend their money on substitute goods and services. As a result, the analysis presented below represents a distributional analysis that only shows how economic impacts may be distributed through regional markets. It should not be interpreted to represent the impacts if these species are not available for harvest or purchase.

Economic impact models can be used to determine the sources of the impacts. Each impact can be broken down into direct, indirect, and induced economic impacts. “Direct” economic impacts are the results of the money initially spent in the study area (e.g., country, region, state, or community) by the fishery or industry being studied. This includes money spent to pay for labor, supplies, raw materials, and operating expenses. The direct economic impacts from the initial spending create additional activity in the local economy, i.e., “indirect” economic impacts. Indirect economic impacts are the results of business-to-business transactions indirectly caused by the direct impacts. For example, businesses initially benefiting from the direct impacts will subsequently increase spending at other local businesses. The indirect economic impact is a measure of this increase in business-to-business activity, excluding the initial round of spending which is included in the estimate of direct impacts. “Induced” economic impacts are the results of increased personal income caused by the direct and indirect economic impacts. For example, businesses experiencing increased revenue from the direct and indirect impacts will subsequently increase spending on labor by hiring more employees, increasing work hours, raising salaries/wage rates, etc. In turn, households will increase spending at local businesses. The induced impact is a measure of this increase in household-to-business activity.

Estimates of the U.S. average annual business activity associated with the commercial harvest of all Gulf reef fish species were derived using the model developed for and applied in NMFS (2024)²³ and are provided in Table 3.3.1.10 & Table 3.3.1.11. Specifically, these impact estimates reflect the expected impacts from average annual gross revenues generated by landings of Gulf yellowmouth grouper and scamp, as well as, yellowfin and black grouper from 2020 through 2024. This business activity is characterized as jobs (full- and part-time equivalents), income impacts (wages, salaries, and self-employed income), value-added impacts (the difference between the value of goods and the cost of materials or supplies), and output impacts (gross business sales). Income impacts should not be added to output (sales) impacts because this would result in double counting.

The results provided here should be interpreted with caution. The results are based on average relationships developed through the analysis of many fishing operations that harvest many different species.

²³ A detailed description of the input/output model is provided in NMFS (2011).

Table 3.3.1.10. Average annual business activity (2020 through 2024) associated with the commercial harvest of yellowmouth grouper and scamp in the Gulf. All monetary estimates are in thousands of 2024 dollars.

Harvesters	Direct	Indirect	Induced	Total
Employment impacts	13	2	3	18
Income impacts	\$395	\$73	\$177	\$646
Total value added impacts	\$421	\$264	\$304	\$989
Output impacts	\$732	\$596	\$589	\$1,917
Primary dealers/processors	Direct	Indirect	Induced	Total
Employment impacts	3	1	2	6
Income impacts	\$129	\$119	\$112	\$360
Total value added impacts	\$137	\$152	\$212	\$501
Output impacts	\$415	\$313	\$414	\$1,141
Secondary wholesalers/distributors	Direct	Indirect	Induced	Total
Employment impacts	1	0	1	3
Income impacts	\$77	\$23	\$81	\$180
Total value added impacts	\$82	\$38	\$138	\$258
Output impacts	\$206	\$75	\$268	\$549
Grocers	Direct	Indirect	Induced	Total
Employment impacts	6	1	1	7
Income impacts	\$158	\$53	\$79	\$290
Total value added impacts	\$168	\$85	\$134	\$387
Output impacts	\$270	\$137	\$264	\$671
Restaurants	Direct	Indirect	Induced	Total
Employment impacts	35	2	6	43
Income impacts	\$634	\$192	\$363	\$1,189
Total value added impacts	\$676	\$344	\$612	\$1,631
Output impacts	\$1,236	\$538	\$1,207	\$2,981
Harvesters and seafood industry	Direct	Indirect	Induced	Total
Employment impacts	58	6	13	77
Income impacts	\$1,393	\$460	\$813	\$2,666
Total value added impacts	\$1,485	\$882	\$1,399	\$3,767
Output impacts	\$2,859	\$1,658	\$2,742	\$7,259

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2024).

Table 3.3.1.11. Average annual business activity (2020 through 2024) associated with the commercial harvest of yellowfin grouper and black grouper in the Gulf. All monetary estimates are in thousands of 2024 dollars.

Harvesters	Direct	Indirect	Induced	Total
Employment impacts	2	0	0	3
Income impacts	\$56	\$10	\$25	\$92
Total value added impacts	\$60	\$38	\$43	\$141
Output impacts	\$105	\$85	\$84	\$274
Primary dealers/processors	Direct	Indirect	Induced	Total
Employment impacts	0	0	0	1
Income impacts	\$18	\$17	\$16	\$51
Total value added impacts	\$20	\$22	\$30	\$72
Output impacts	\$59	\$45	\$59	\$163
Secondary wholesalers/distributors	Direct	Indirect	Induced	Total
Employment impacts	0	0	0	0
Income impacts	\$11	\$3	\$12	\$26
Total value added impacts	\$12	\$5	\$20	\$37
Output impacts	\$29	\$11	\$38	\$78
Grocers	Direct	Indirect	Induced	Total
Employment impacts	1	0	0	1
Income impacts	\$23	\$8	\$11	\$41
Total value added impacts	\$24	\$12	\$19	\$55
Output impacts	\$39	\$20	\$38	\$96
Restaurants	Direct	Indirect	Induced	Total
Employment impacts	5	0	1	6
Income impacts	\$91	\$27	\$52	\$170
Total value added impacts	\$97	\$49	\$87	\$233
Output impacts	\$177	\$77	\$172	\$426
Harvesters and seafood industry	Direct	Indirect	Induced	Total
Employment impacts	8	1	2	11
Income impacts	\$199	\$66	\$116	\$381
Total value added impacts	\$212	\$126	\$200	\$538
Output impacts	\$408	\$237	\$392	\$1,037

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2024).

3.3.2 Recreational Sector

The recreational sector is composed of the private and for-hire modes. The private mode includes anglers fishing from shore (all land-based structures) and private/rental boats. The for-hire mode is composed of charter vessels and headboats (also called party boats). Charter vessels generally carry fewer passengers and charge a fee on an entire vessel basis, whereas headboats carry more passengers and payment is per person. The type of service, from a vessel- or passenger-size perspective, affects the flexibility to search different fishing locations during the course of a trip and target different species because larger concentrations of fish are required to satisfy larger groups of anglers.

Angler Effort

Recreational effort derived from the MRIP database can be characterized in terms of the number of angler trips as follows:

- Target effort - The number of individual angler trips, regardless of duration, where the intercepted angler indicated that the species or a species in the species group was targeted as either the first or the second primary target for the trip. The species did not have to be caught.
- Catch effort - The number of individual angler trips, regardless of duration and target intent, where the individual species or a species in the species group was caught. The fish did not have to be kept.
- Total recreational trips - The total estimated number of recreational trips in the Gulf, regardless of target intent or catch success.

Other measures of effort are possible, such as directed trips (the number of individual angler trips that either targeted or caught a particular species). Estimates of target or catch effort for individual species and additional years, as well as other measures of directed effort, are available via NMFS' MRIP query tool.²⁴

Tables 3.3.2.1 and 3.3.2.2 describe the recreational target and catch trips for yellowmouth grouper and scamp in the Gulf from 2020 through 2024. There were no recorded target trips from the shore mode, Mississippi, or Texas for these species. Louisiana data are currently unavailable. The overall number of target and catch trips recorded for yellowmouth grouper and scamp were relatively low at 24,994 and 156,668, respectively, on average when compared to recreational effort for other Gulf reef fish species. Charter vessels comprised the majority of both target and catch trips for Gulf yellowmouth grouper and scamp. Florida accounted for the vast majority of these trips, with minor amounts of trips occurring in Alabama (Table 3.3.2.1 and Table 3.3.2.2).

²⁴ <https://www.fisheries.noaa.gov/data-tools/recreational-fisheries-statistics-queries>

Table 3.3.2.1. Gulf yellowmouth grouper and scamp recreational target trips, by mode and state, 2020-2024.

Year	Alabama	Florida	Total
Charter Mode			
2020	108	549	657
2021	226	531	757
2022	603	1,649	2,251
2023	0	1,409	1,409
2024	45	882	927
Average	196	1,004	1,200
Private Mode			
2020	4,438	24,017	28,455
2021	7,637	841	8,478
2022	992	48,124	49,115
2023	4,380	14,800	19,180
2024	2,291	11,452	13,743
Average	3,948	19,847	23,794
All Modes			
2020	4,546	24,566	29,112
2021	7,863	1,372	9,235
2022	1,595	49,773	51,366
2023	4,380	16,209	20,589
2024	2,336	12,334	14,670
Average	4,144	20,851	24,994

Source: MRIP database, SERO, NMFS (July 2025).

Note: No reported trips for Mississippi. Texas, Louisiana, and headboat information is currently unavailable.

Table 3.3.2.2. Gulf yellowmouth grouper and scamp recreational catch trips, by mode and state, 2020-2024.

Year	Alabama	Florida	Mississippi	Total
Charter Mode				
2020	2,699	34,192	0	36,891
2021	3,526	44,979	0	48,505
2022	5,101	48,374	0	53,476
2023	4,448	38,286	0	42,734
2024	2,455	36,110	0	38,565
Average	3,646	40,388	0	44,034
Private Mode				
2020	2,259	96,166	0	98,425
2021	1,006	78,582	4,801	84,389
2022	10,896	127,299	0	138,195
2023	10,566	90,280	0	100,846
2024	17,774	116,436	2,496	136,706
Average	8,500	101,752	1,459	111,712
Shore Mode*				
2020	0	4,610	0	4,610
2021	0	0	0	0
2022	0	0	0	0
2023	0	0	0	0
2024	0	0	0	0
Average	0	922	0	922
All Modes				
2020	4,958	134,968	0	139,926
2021	4,532	123,561	4,801	132,894
2022	15,997	175,673	0	191,671
2023	15,014	128,566	0	143,580
2024	20,229	152,546	2,496	175,271
Average	12,146	143,063		156,668

Source: MRIP database, SERO, NMFS (July 2025).

Note: Louisiana, Texas, and headboat information is currently unavailable.

* These estimates have associated percent standard errors (PSE) greater than 50. MRIP does not support the use of estimates with a percent standard error above 50 and in those instances, recommends considering higher levels of aggregation (e.g., across states, geographic regions, or fishing modes).

Tables 3.3.2.3 and 3.3.2.4 describe the recreational target and catch trips for yellowfin grouper and black grouper in the Gulf from 2020 through 2024. There were no recorded target trips Mississippi or Texas for these species and Louisiana data are currently unavailable. Like

yellowmouth and scamp, the overall number of target trips recorded for yellowfin grouper and black grouper were relatively low at 26,073 trips on average annually when compared to to recreational effort for other Gulf reef fish species. Trips that caught yellowfin grouper and black grouper averaged 51,090 trips annually. Private vessels comprised the majority of both target and catch trips for Gulf yellowfin grouper and black grouper. Unlike yellowmouth and scamp, shore mode accounted for approximately 35% of yellowfin grouper and black grouper catch trips. Florida accounted for the vast majority of these trips, with minor amounts of trips occurring in Alabama (Table 3.3.2.3 and Table 3.3.2.4).

Table 3.3.2.3. Gulf yellowfin grouper and black grouper recreational target trips, by mode and state, 2020-2024.

Year	Alabama	Florida	Total
Charter Mode			
2020	0	0	0
2021	0	263	263
2022	0	1,771	1,771
2023	0	1,606	1,606
2024	0	0	0
Average	0	728	728
Private Mode			
2020	0	5,389	5,389
2021	0	8,176	8,176
2022	3,462	19,142	22,604
2023	0	43,997	43,997
2024	0	13,776	13,776
Average	692	18,096	18,789
Shore Mode			
2020	0	11,647	11,647
2021	0	2,810	2,810
2022	0	3,238	3,238
2023	0	15,086	15,086
2024	0	0	0
Average	0	6,556	6,556
All Modes			
2020	0	17,036	17,036
2021	0	11,249	11,249
2022	3,462	24,151	27,613
2023	0	60,689	60,689
2024	0	13,776	13,776
Average	692	25,380	26,073

Source: MRIP database, SERO, NMFS (July 2025).

Note: No reported trips for Mississippi. Louisiana, Texas, and headboat information is currently unavailable.

Table 3.3.2.4. Gulf yellowfin grouper and black grouper recreational catch trips, by mode and state, 2020-2024.

Year	Alabama	Florida	Total
Shore Mode			
2020	0	6,485	6,485
2021	0	6,067	6,067
2022	0	5,883	5,883
2023	0	4,082	4,082
2024	134	3,086	3,220
Average	27	5,121	5,148
Charter Mode			
2020	647	19,389	20,035
2021	0	21,794	21,794
2022	346	22,374	22,720
2023	0	45,794	45,794
2024	0	29,294	29,294
Average	199	27,729	27,927
Private Mode			
2020	0	50,040	50,040
2021	723	15,495	16,218
2022	0	1,126	1,126
2023	0	11,878	11,878
2024	0	10,816	10,816
Average	145	17,871	18,016
All Modes			
2020	647	75,914	76,560
2021	723	43,356	44,079
2022	346	29,383	29,729
2023	0	61,754	61,754
2024	134	43,196	43,330
Average	370	50,721	51,090

Source: MRIP database, SERO, NMFS (July 2025).

Note: Louisiana, Texas, and headboat information is currently unavailable.

Similar analysis of recreational effort is not possible for the headboat mode in the Gulf because headboat data are not collected at the angler level. Estimates of effort by the headboat mode are provided in terms of angler days, or the number of standardized full-day angler trips.²⁵ The

²⁵ Headboat trip categories include half-, three-quarter-, full-, and 2-day trips. A full-day trip equals one angler day, a half-day trip equals 0.5 angler days, etc. Angler days are not standardized to an hourly measure of effort and actual trip durations may vary within each category.

stationary “fishing for demersal (bottom-dwelling) species” nature of headboat fishing, as opposed to trolling, suggests that most, if not all, headboat trips and, hence, angler days, are demersal or reef fish trips by intent.

Headboat angler days have been variable across the Gulf States from 2020 through 2024, but there were no well-defined trends (Table 3.3.2.5). On average (2020 through 2024), Florida accounted for the majority of headboat angler days reported, followed by Texas and Alabama; Mississippi and Louisiana combined accounted for only a small percentage (Table 3.3.2.5). Headboat effort in terms of angler days for the entire Gulf tended to be concentrated most heavily during the summer months of June through August (Figure 3.3.2.1).

Table 3.3.2.5. Gulf headboat angler days and percent distribution by state (2020 through 2024).

	Angler Days				Percent Distribution			
	FL	AL	MS-LA*	TX	FL	AL	MS-LA	TX
2020	126,794	13,091	1,728	51,498	65.66%	6.78%	0.89%	26.67%
2021	181,632	13,844	3,197	71,344	67.27%	5.13%	1.18%	26.42%
2022	149,368	14,588	3,675	62,705	64.85%	6.33%	1.60%	27.22%
2023	149,735	12,513	3,244	58,279	66.91%	5.59%	1.45%	26.04%
2024	146,544	10,761	2,113	57,074	67.69%	4.97%	0.98%	26.36%
Average	150,815	12,959	2,791	60,180	66.48%	5.76%	1.22%	26.54%

Source: NMFS Southeast Region Headboat Survey (SRHS) (2023).

*Headboat data from Mississippi and Louisiana are combined for confidentiality purposes.

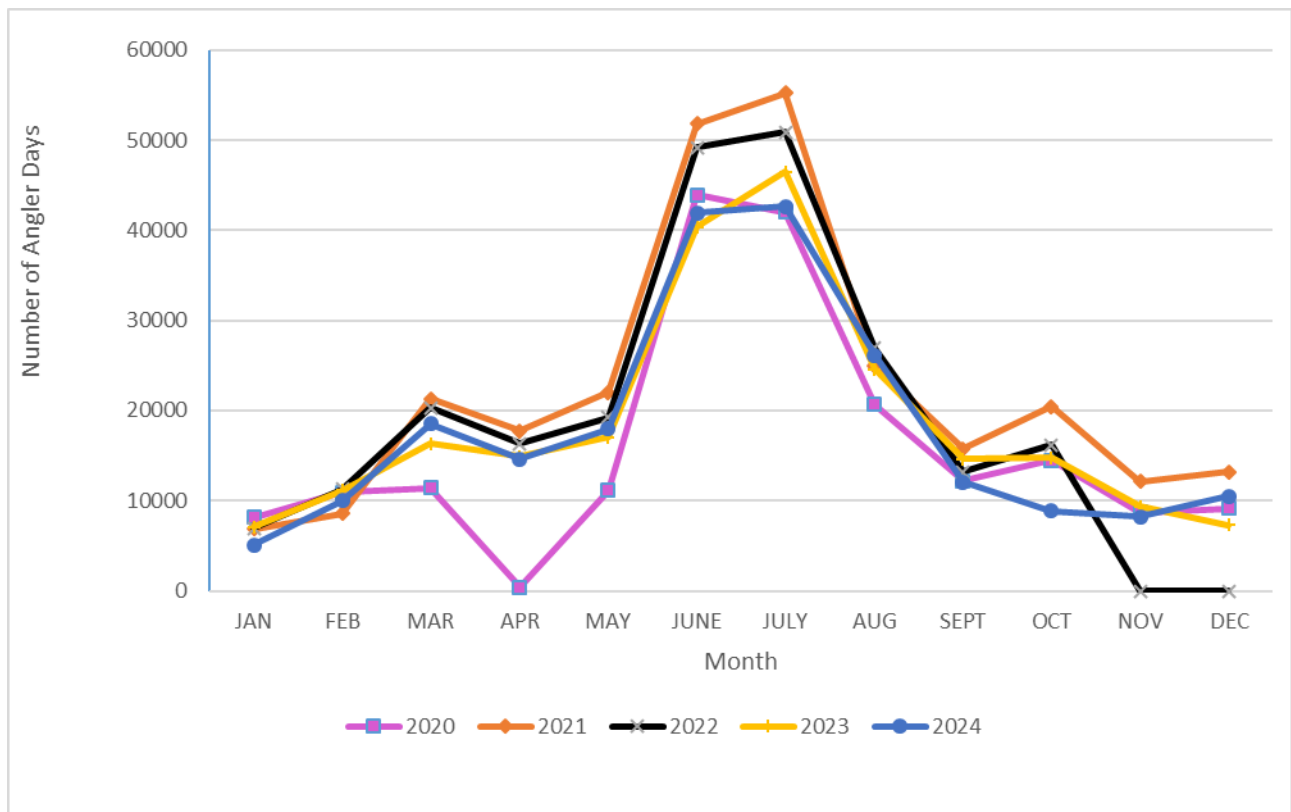


Figure 3.3.2.1. Gulf headboat angler days by year and month (2020 - 2024).

Source: NMFS SRHS (2024).

Permits

There are no specific federal permitting requirements for private recreational anglers to fish for or harvest shallow water grouper species. The same is true for private recreational vessel owners. Instead, private anglers are required either to possess a state recreational fishing permit that authorizes saltwater fishing in general, or to be registered in the federal National Saltwater Angler Registry system, subject to appropriate exemptions. As a result, it is not possible to identify with available data how many individual private anglers or private recreational vessels would be expected to be affected by the actions in this amendment.

For anglers to fish for or possess reef fish species in or from the Gulf EEZ on for-hire vessels, those vessels are required to have a Gulf charter/headboat permit for reef fish (Gulf reef fish for-hire permit). As of August 26, 2021, there were 1,273 valid or renewable²⁶ Gulf reef fish for-hire permits. The total number of valid or renewable Gulf reef fish for-hire permits has been relatively stable with less than a 1% change from year to year during 2016 through 2020 (Table 3.3.2.6). Note more recent permit information is currently unavailable.

Although the permit application collects information on the primary method of operation, the permit itself does not identify the permitted vessel as either a headboat or a charter vessel and

²⁶ A renewable permit is an expired permit that may not be actively fished, but is renewable for up to one year after expiration.

vessels may operate in both capacities. However, if a vessel meets the selection criteria used by the Southeast Regional Headboat Survey (SRHS) and is selected to report by the Science Research Director of the SEFSC, it is determined to operate primarily as a headboat and is required to submit harvest and effort information to the SRHS. During 2024, 73 Gulf headboats were registered in the SRHS (R. Cheshire, NMFS SEFSC, pers. comm. 2025). The majority of these headboats were located in Florida (44), followed by Texas (18), Alabama (7), and Mississippi/Louisiana (4).

Table 3.3.2.6. Number of valid or renewable Gulf reef fish for-hire permits, 2016-2020.

Year	Number of Permits
2016	1,282
2017	1,280
2018	1,279
2019	1,277
2020	1,289

Source: NMFS SERO Sustainable Fisheries (SF) Access permits database (accessed 05/17/22).

Economic Value

Participation, effort, and harvest are indicators of the value of saltwater recreational fishing. However, a more specific indicator of value is consumer surplus (CS), which is the difference between the maximum amount an angler would be willing to pay for a fish and the amount they actually do pay.²⁷ CS represents a savings of one’s income that can be spent later on other goods and services, leading to an overall increase in utility or satisfaction for the angler and a benefit to the economy. All else equal, the amount anglers are willing to pay, and the costs of fishing can vary depending on expected catch rates, harvest rates, and existing regulations. The economic value of changes in expected catch rates, harvest rates, or existing regulations can be measured by any associated changes in CS. However, because recreationally caught fish are non-market goods and there are no transaction data available, CS cannot be measured directly. Instead, using survey elicitation methods and stated or revealed preference models, it is possible to estimate willingness-to-pay (WTP) values²⁸ that are a close approximation to the individual CS an angler would derive from an additional fish that is caught and kept. Direct estimates of the WTP for scamp, yellowmouth grouper, black grouper, and yellowfin grouper are not currently available. There are, however, estimates for grouper species in general. Haab et al. (2012) estimated the WTP for one additional grouper caught and kept in the Southeastern U.S. using four separate econometric modeling techniques. The finite mixture model, which considers variation in the preferences of fishermen, had the best prediction rates of the four models and, as such, was selected for presentation here. The mean WTP for an additional grouper was estimated to be \$168.76 (2024\$). Another study estimated the mean WTP for catching and keeping a second grouper on an angler trip at approximately \$131 (2024\$) and lower thereafter (approximately \$87 for a third grouper, \$64 for a fourth grouper, and \$51 for a fifth grouper) (Carter and Liese

²⁷ Holding income and the prices of other goods constant.

²⁸ These are measures of compensating surplus, or the amount of money that an angler would be willing to pay in order to harvest the additional fish, while maintaining the same level of utility.

2012). For the purposes of this amendment, the \$131 per fish estimate is assumed to be the best value to use for estimating the CS associated with catching and keeping a species in the Other SWG complex. The higher value provided by Haab et al. (2012) is likely less reasonable for these particular species.

Economic value for the for-hire component of the recreational sector can be measured in many ways. According to Savolainen et al. (2012), the average charter vessel operating in the Gulf is estimated to receive approximately \$107,000 (2024\$) in gross revenue and \$32,000 (2024\$) in net income (gross revenue minus variable and fixed costs) annually. The average headboat is estimated to receive approximately \$325,000 (2024\$) in gross revenue and \$95,000 (2024\$) in net income annually. More recent estimates of average annual gross revenue for Gulf headboats are provided in Abbott and Willard (2017) and D. Carter, SEFSC, pers. comm. 2018. Abbott and Willard (2017) suggest that Savolainen, et al.'s estimate of average annual gross revenue for headboats may be an underestimate, as data in the former suggest that average gross revenue in 2009 for the vessels in their sample was about \$575,000 (2024\$). Further, their data suggest average annual gross revenue per vessel had increased to about \$694,000 (2024\$) by 2014. However, Abbott and Willard's estimates are based on a sample of 17 headboats that chose to participate in the headboat collaborative program in 2014, while the Savolainen, et al. estimates are based on a random sample of 20 headboats. The headboats that participated in the collaborative program may be economic highliners, in which case Abbott and Willard's estimates would overestimate average annual gross revenue for Gulf headboats. D. Carter, SEFSC, pers. comm. 2018 recently estimated that average annual gross revenue for Gulf headboats was approximately \$514,000 (2024\$) in 2017. This estimate is likely the best current estimate of annual gross revenue for Gulf headboats, as it is based on a relatively large sample of 63 boats, or more than 90% of the active fleet, and is more recent.

However, gross revenues overstate the annual economic value and profits generated by for-hire vessels. Economic value for for-hire vessels can be measured by PS per passenger trip (the amount of money that a vessel owner earns in excess of the cost of providing the trip). Estimates of revenue, costs, and trip net revenue (TNR) for trips taken by headboats and charter vessels in 2017 are available from Souza and Liese (2019). After accounting for transactions fees, supply costs, and labor costs, net revenue per trip was 42% of revenue for Gulf charter vessels and 54% of revenue for Southeast headboats,²⁹ or \$938 and \$2,179 (2024\$), respectively (Table 3.3.2.5). When TNR is divided by the number of anglers on a trip, it represents cash flow per angler (CFpA), which approximates PS per angler trip. The estimated CFpA value for an average Gulf charter angler trip is \$171 (2024\$) and the estimated CFpA value for an average Gulf headboat angler trip is \$77 (2024\$; Souza and Liese 2019). Estimates of CFpA for individual Reef Fish species or species group target trips, in particular, are not available.

²⁹ Southeast headboats include headboats operating either the Gulf or South Atlantic. Souza and Liese (2019) state "the sample size available for headboats is limited (n=30) and, hence, the results are presented at an overall SE aggregation."

Table 3.3.2.7. Trip economics for offshore trips by Gulf charter vessels and Southeast headboats in 2017 (2024\$).

	Gulf Charter Vessels	Southeast Headboats
Revenue	100%	100%
Transaction Fees (% of revenue)	3%	6%
Supply Costs (% of revenue)	27%	19%
Labor Costs (% of revenue)	27%	22%
Net Revenue per trip including Labor costs (% of revenue)	42%	54%
Net Revenue per Trip	\$938	\$2,179
Average # of Anglers per Trip	5.5	28.2
Trip Net Cash Flow per Angler Trip	\$171	\$77

Source: Souza and Liese (2019).

Business Activity

The desire for recreational fishing generates economic activity as consumers spend their income on various goods and services needed for recreational fishing. This spurs economic activity in the region where recreational fishing occurs. Note, in the absence of the opportunity to fish, the income would presumably be spent on other goods and services and these expenditures would similarly generate economic activity in the region where the expenditure occurs. As such, the analysis below represents a distributional analysis only.

Estimates of the business activity (economic impacts) associated with recreational angling for Gulf Other shallow-water grouper species were calculated using average trip-level impact coefficients derived from the 2022 Fisheries Economics of the U.S. report (NMFS 2024) and underlying data provided by the National Oceanic and Atmospheric Administration Office of Science and Technology. Economic impact estimates in 2022 dollars were adjusted to 2024 dollars using the annual, not seasonally adjusted, gross domestic product (GDP) implicit price deflator provided by the U.S. Bureau of Economic Analysis.

Business activity (economic impacts) for the recreational sector is characterized in the form of jobs (full- and part-time), income impacts (wages, salaries, and self-employed income), output impacts (gross business sales), and value-added impacts (contribution to the GDP in a state or region). Estimates of the average annual economic impacts (2020-2024) resulting from Gulf yellowmouth grouper or Gulf scamp charter, private vessel, and shore target trips are provided in Table 3.3.2.8. Estimates of the average annual economic impacts (2020-2024) resulting from

Gulf yellowfin grouper or black grouper charter, private vessel, and shore target trips are provided in Table 3.3.2.9. These impacts should not be added together because this would result in double counting. The average impact coefficients, or multipliers, used in the model are invariant to the “type” of effort (e.g., target or catch) and can therefore be directly used to measure the impact of other effort measures such as Gulf yellowfin grouper or black grouper catch trips. To calculate the multipliers from Table 3.3.2.8 or Table 3.3.2.9, simply divide the desired impact measure (value-added impact, sales impact, income impact, or employment) associated with a given state and mode by the number of target trips for that state and mode.

The estimates provided in Table 3.3.2.8 and Table 3.3.2.9 only apply at the state-level. Addition of the state-level estimates to produce a regional (or national) total may underestimate the actual amount of total business activity, because state-level impact multipliers do not account for interstate and interregional trading. It is also important to note that these economic impacts estimates are based on trip expenditures only and do not account for durable expenditures. Durable expenditures cannot be reasonably apportioned to individual species or species groups. As such, the estimates provided in Table 3.3.2.8 and Table 3.3.2.9 may be considered a lower bound on the economic activity associated with those trips that targeted either Gulf yellowmouth grouper or scamp, as well as those trips that targeted either Gulf yellowfin or black grouper.

Estimates of the business activity associated with headboat effort are not available. Headboat vessels are not covered by MRIP in the Southeast, so, in addition to the absence of estimates of target effort, estimation of the appropriate business activity coefficients for headboat effort has not been conducted.

Table 3.3.2.8. Estimated average annual economic impacts (2020-2024) from Gulf charter, private vessel, and shore yellowmouth grouper or scamp target trips, by state,* using state-level multipliers. All monetary estimates are in 2024 dollars in thousands.

	FL	AL
Charter Mode		
Target Trips	1,004	196
Value Added Impacts	\$676	\$80
Sales Impacts	\$1,071	\$139
Income Impacts	\$461	\$57
Employment (Jobs)	10	2
Private/Rental Mode		
Target Trips	19,847	3,948
Value Added Impacts	\$710	\$154
Sales Impacts	\$1,186	\$332
Income Impacts	\$348	\$66
Employment (Jobs)	7	1
All Modes		
Target Trips	20,851	4,144
Value Added Impacts	\$1,386	\$234
Sales Impacts	\$2,257	\$471
Income Impacts	\$809	\$124
Employment (Jobs)	16	3

*There was no recorded target effort for red grouper in from shore mode, Texas, or Mississippi. Louisiana data are currently unavailable.

National-level multipliers must be used to account for interstate and interregional trading when calculating a national total of economic impacts. Between 2020 and 2024, and using national-level multipliers, Gulf yellowmouth grouper or scamp target effort generated employment, income, value-added, and output (sales) impacts of 9 jobs, \$513,000, \$931,000, and \$1.76 million per year, respectively, on average.

Table 3.3.2.9. Estimated average annual economic impacts (2020-2024) from Gulf charter, private vessel, and shore yellowfin or black grouper target trips, by state,* using state-level multipliers. All monetary estimates are in 2024 dollars in thousands.

	FL	AL
Charter Mode		
Target Trips	728	0
Value Added Impacts	\$491	\$0
Sales Impacts	\$777	\$0
Income Impacts	\$334	\$0
Employment (Jobs)	7	0
Private/Rental Mode		
Target Trips	18,096	692
Value Added Impacts	\$647	\$27
Sales Impacts	\$1,081	\$58
Income Impacts	\$317	\$12
Employment (Jobs)	6	0
Shore		
Target Trips	6,556	0
Value Added Impacts	\$378	\$0
Sales Impacts	\$625	\$0
Income Impacts	\$202	\$0
Employment (Jobs)	4	0
All Modes		
Target Trips	25,380	692
Value Added Impacts	\$1,515	\$27
Sales Impacts	\$2,483	\$58
Income Impacts	\$853	\$12
Employment (Jobs)	17	0

*There was no recorded target effort for red grouper in Texas or Mississippi and Louisiana data are currently unavailable.

National-level multipliers must be used to account for interstate and interregional trading when calculating a national total of economic impacts. Between 2020 and 2024, and using national-level multipliers, Gulf yellowfin or black grouper target effort generated employment, income, value-added, and output (sales) impacts of 7 jobs, \$457,000, \$838,000 million, and \$1.58 million per year, respectively, on average.

3.4 Description of the Social Environment

This amendment affects the commercial and recreational management of black grouper, yellowfin grouper, scamp, and yellowmouth grouper in the Gulf. The following description presents baseline information on fishing participants and fishing communities. This description includes the current status of the fisheries in order to present the communities that are expected to be primarily affected by the actions in this amendment because they are the most engaged in and/or reliant on the fisheries and is used to inform the social effects. Community level data are presented whenever possible in order to meet the requirements of National Standard 8 of the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act), which requires the consideration of the importance of fishery resources to human communities when changes to fishing regulations are considered.

The following description includes permits related to the commercial and recreational reef fish fishing by state to provide a geographic distribution of fishing involvement. Top communities based on the number of permits are presented. Commercial and recreational landings by state are included to provide information on the geographic distribution of fishing involvement. Descriptions of Other SWG-IFQ accounts with shares, Other SWG-IFQ accounts with allocation but without shares, and Other SWG-IFQ dealers are included at the state and community level. The top communities in the Gulf by commercial landings of Other SWG, black grouper and yellowfin grouper, and scamp and yellowmouth grouper are identified; the contribution of Other SWG, black grouper and yellowfin grouper, and scamp and yellowmouth grouper species compared to the total landings for the community are depicted; and their commercial engagement and reliance are described. Descriptions of the top communities based on recreational engagement and top communities by headboat survey landings are also included. Lastly, social vulnerability data are presented for all top-ranking communities.

The most recent data available has been utilized in the following section; however, the year range or date presented may not match what is included elsewhere because some sources of data are not available at the community or state level.

3.4.1 Commercial Sector

Permits

Gulf reef fish permits are issued to entities, such as individuals and businesses in Florida (81.4% of Gulf reef fish vessels), Texas (7.8%), Alabama (4.5%), Louisiana (3.8%), and Mississippi (0.9%) (SERO permit office, July 8, 2021). Residents of other states (Arkansas, Georgia, Illinois, Maryland, Missouri, North Carolina, New York, Oklahoma, and South Carolina) also hold commercial reef fish permits, but these states represent a smaller percentage of the total number of issued permits.

Gulf reef fish permits are held those with mailing addresses in 232 communities (SERO permit office, July 8, 2021). Communities with the most commercial reef fish permits are located in Florida and Texas (Table 3.4.1.1). The communities with the most reef fish permits are Panama

City, Florida (9.1% of reef fish permits), Key West, Florida (4.8%), and St. Petersburg, Florida (3.3%).

Table 3.4.1.1. Top communities by number of Gulf reef fish permits.

State	Community	Reef Fish Permits
FL	Panama City	82
FL	Key West	43
FL	St. Petersburg	30
FL	Largo	26
TX	Galveston	22
FL	Destin	22
FL	Cortez	21
FL	Pensacola	21
FL	Seminole	20
FL	Clearwater	16
FL	Tampa	16
FL	Lynn Haven	13
FL	Naples	13
FL	Steinhatchee	13
FL	Apalachicola	11
FL	Tarpon Springs	11

Source: SERO permit office, July 8, 2021.

Landings

The majority of the commercial catch of Other SWG species is landed along the west coast of Florida (average of 87% from 2016-2020), followed by Louisiana (9.1%), Texas (2.9%), and Alabama and Mississippi (1%, NMFS SERO IFQ database accessed 4/2/25). Nearly all commercial catch of black grouper and yellowfin grouper is landed along the west coast of Florida (average of 97.1% from 2016-2020), followed by Louisiana (1.3%), Texas (0.9%), and Alabama and Mississippi (0.8%). The majority of the commercial catch of scamp and yellowmouth grouper is landed along the west coast of Florida (average of 84.8% from 2016-2020), followed by Louisiana (10.8%), Texas (3.4%), and Alabama and Mississippi (1%).

IFQ Accounts

To land IFQ-managed species, such as Other SWG, fishermen need a permitted vessel and sufficient IFQ allocation in the vessel’s account to land the fish. Some accounts are held in the name of an individual, or more than one individual, while others form business entities and open accounts in the name of the business. This makes it more difficult to talk about the social environment as there may be multiple individuals behind the account, and they may not reside in

the same area. In the following analysis, accounts are described at the state and community level based on the mailing address of the individual; business; or primary entity which equates to the primary individual listed on the account, if the account is held by more than one individual.

Also called shareholder accounts, an IFQ account is required to hold shares and allocation. The number of accounts is used here as a proxy to represent the number of participants.

Shareholders

As of July 8, 2021, a total of 507 IFQ accounts held shares of Other SWG-IFQ (IFQ database; includes active and suspended accounts). The majority of accounts with Other SWG-IFQ shares have a mailing address in Florida (80.1% of accounts with Other SWG-IFQ shares, Table 3.4.1.2), followed by Texas (7.1%), Alabama (4.7%), Louisiana (4.1%), and Mississippi (1%). Accounts with mailing addresses in other states (Arkansas, Georgia, Michigan, North Carolina, New York, Oregon, South Carolina, Tennessee, Utah, and Wyoming) also hold Other SWG-IFQ shares, but these states represent a smaller percentage of the total number of accounts with shares.

The greatest proportion of Other SWG-IFQ shares are held in accounts with mailing addresses in Florida, followed by Texas (Table 3.4.1.2). Accounts in Alabama, Louisiana, Mississippi, and other states also hold SWG-IFQ shares, but these states represent a smaller percentage of shares.

Table 3.4.1.2. Number of IFQ accounts with Other SWG shares by state, including the percentage of shares by state by share category.

State	Accounts	SWG Shares (%)
AL	24	1.906
FL	406	76.258
LA	21	3.806
MS	5	0.423
TX	36	12.565
Other	15	4.432
Total	507	99.389

Source: NMFS SERO IFQ database accessed 7/8/21.

Note: Includes active and suspended accounts.

Accounts with Other SWG-IFQ shares are held by people with mailing addresses in a total of 183 communities (IFQ database accessed 7/8/21). Communities with the most accounts with Other SWG-IFQ shares are located in Florida and Texas (Table 3.4.1.3). The community with the most accounts with Other SWG-IFQ shares is Panama City, Florida (8.3% of accounts with shares), followed by Key West, Florida (4.7%), and Largo, Florida (3%).

Table 3.4.1.3. Top communities by number of IFQ accounts with Other SWG shares, including the percentage of shares by community.

State	Community	Accounts	Other SWG Shares (%)
FL	Panama City	42	11.952
FL	Key West	24	1.984
FL	Largo	15	2.604
FL	Cortez	14	2.213
FL	Pensacola	14	1.883
FL	Destin	13	1.076
FL	St. Petersburg	13	1.471
TX	Galveston	9	2.799
FL	Seminole	9	2.343
FL	Steinhatchee	9	1.403
FL	Tampa	9	1.153
FL	Apalachicola	8	2.059
FL	Fort Walton Beach	7	0.914
FL	Tallahassee	7	0.124
FL	Tarpon Springs	7	2.893

Source: NMFS SERO IFQ database accessed 7/8/21.

The largest or maximum percent of Other SWG-IFQ shares held in a community is 11.952% in Panama City, Florida (IFQ database accessed 7/8/21). The percentage of shares by community varies widely and a large number of accounts with shares may not necessarily correlate to a large percentage of shares in a particular category (Table 3.4.1.3). Some communities with a relatively smaller number of accounts may have a larger percentage of shares.

Allocation Holders without Shares

In 2020, a total of 214 IFQ accounts held Other SWG-IFQ allocation without Other SWG-IFQ shares (IFQ database accessed 2/25/22). However, these accounts may be related to accounts with SWG shares. The majority of accounts with Other SWG-IFQ allocation, but without Other SWG-IFQ shares have mailing addresses in Florida (79.4% of accounts with SWG allocation, but without SWG shares, Table 3.4.1.4), followed by Texas (9.8%), Louisiana (4.7%), and Alabama and Mississippi (3.3%). Account holders with Other SWG allocation, but without Other SWG shares also have mailing addresses in other states (Georgia, Illinois, North Carolina, Ohio, and South Carolina), but these states represent a smaller percentage of the total number of accounts with Other SWG allocation, but without Other SWG shares.

Table 3.4.1.4. Number of IFQ accounts with Other SWG allocation, but without Other SWG shares by state, 2020.

State	Accounts
AL/MS	7
FL	170
LA	10
TX	21
Other	6
Total	214

Source: NMFS SERO IFQ database accessed 2/25/22.

IFQ accounts with Other SWG-IFQ allocation, but without Other SWG-IFQ shares have mailing addresses in a total of 92 communities (IFQ database accessed 2/25/22). Communities with the most accounts with allocation, but without shares are located in Florida and Texas (Table 3.4.1.5). The community with the most accounts with allocation, but without shares is Panama City, Florida (8.4% of accounts with allocation, but without shares, Table 3.4.1.5), followed by Galveston, Texas (6.1%) and St. Petersburg, Florida (5.6%).

Table 3.4.1.5. Top communities by number of IFQ accounts with Other SWG allocation, but without Other SWG shares, 2020.

State	Community	Accounts
FL	Panama City	18
TX	Galveston	13
FL	St. Petersburg	12
FL	Largo	11
FL	Madeira Beach	9
FL	Clearwater	6
FL	Pensacola	6
FL	Seminole	6

Source: NMFS SERO IFQ database accessed 2/25/22.

Dealers

The majority of dealer facilities with Other SWG-IFQ species landings are located in Florida (average of 79.5% of Gulf SWG IFQ dealer facilities for 2016-2020, Table 3.4.1.6), followed by Louisiana (7.9%), Texas (6.8%), and Alabama and Mississippi (5.9%).

Table 3.4.1.6. Number of Other SWG IFQ dealer facilities by state for 2016-2020.

Year	AL/MS	FL	LA	TX
2016	7	87	8	7
2017	5	91	10	9
2018	6	84	9	10
2019	8	90	6	6
2020	6	82	10	5

Source: NMFS SERO IFQ database accessed 4/2/25.

Gulf Other SWG-IFQ dealers are located in a total 89 communities (IFQ database accessed 4/2/25, includes dealers with landings of Other SWG species from 2016-2020). Communities with the most Gulf Other SWG-IFQ dealer facilities are located in Florida, Alabama, and Louisiana (Table 3.4.1.7). The community with the most Other SWG-IFQ dealer facilities is Panama City, Florida (6.6% of Gulf Other SWG-IFQ dealer facilities, Table 3.4.1.7), followed by Key West, Florida (6.1%) and Madeira Beach, Florida (5.6%).

Table 3.4.1.7. Top communities by number of dealer facilities with Other SWG-IFQ landings during 2016-2020.

State	Community	*Dealer Facilities
FL	Panama City	14
FL	Key West	13
FL	Madeira Beach	12
FL	Destin	7
FL	St. Petersburg	7
AL	Bayou La Batre	5
FL	Bokeelia	5
FL	Crystal River	5
FL	St. James City	5
FL	Steinhatchee	5
LA	Golden Meadow	5

Source: NMFS SERO IFQ database accessed 4/2/25.

*Multiple dealers can use the same facility and a dealer can operate at multiple facilities.

Regional Quotient

Other SWG

Regional Quotient (RQ) is the proportion of Other SWG-IFQ species landed within a community out of the total amount of Other SWG-IFQ species landed within the Southeast region. It is an indicator of the percent contribution in pounds of Other SWG-IFQ species landed within that community relative to the regional fishery. The RQ utilizes the dealer's facility address to identify the community of landing. The RQ is reported individually only for the top 10 communities by total landings for the years of 2016 through 2020. All other communities that

landed Other SWG-IFQ species are grouped as “Other.” Figure 3.4.1.1 shows the RQ in percentage of pounds from 2016 to 2020. The dominant communities for Other SWG-IFQ species pounds landed included the communities of Madeira Beach, Panama City, and Apalachicola, Florida and Golden Meadow, Louisiana (Figure 3.4.1.1). Several of the top 10 communities are located in Pinellas County, Florida (Madeira Beach, Indian Shores, Tarpon Springs, and Redington Shores) and are within close proximity to each other. Indian Shores and Redington Shores are in particularly close geographic proximity as they border each other, but are separate towns and therefore are included as separate communities. Cortez, Florida is also located nearby in the adjacent county of Manatee County. Two of the top three communities are located in the Florida Panhandle (Panama City and Apalachicola).

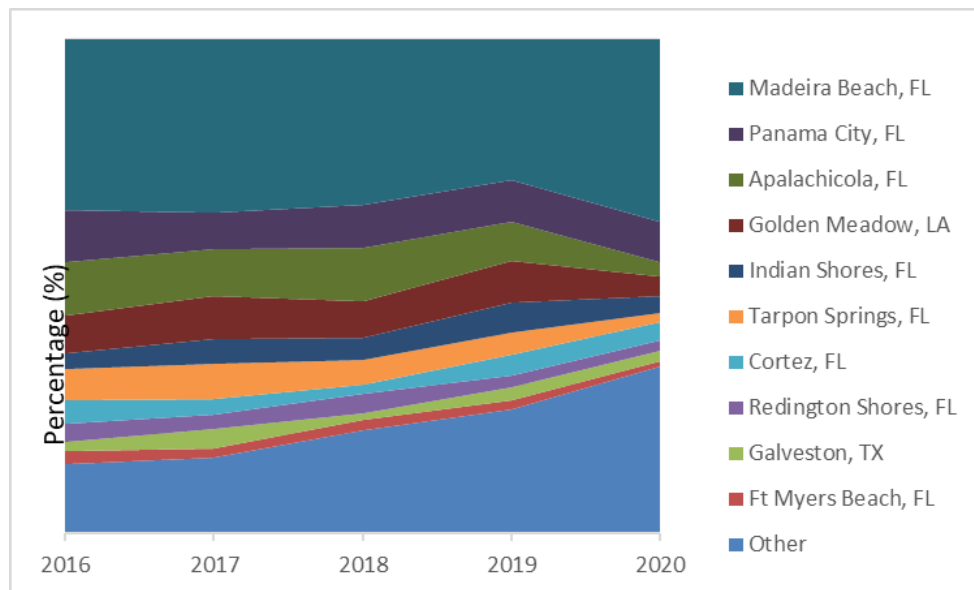


Figure 3.4.1.1. Regional Quotient for top communities by landings in the Gulf Other SWG-IFQ Program from 2016 through 2020.

Source: IFQ database accessed 4/2/25.

Black Grouper Complex: Black Grouper and Yellowfin Grouper

The RQ for black grouper and yellowfin grouper is the proportion of the species landed within a community out of the total amount of the species landed within the Gulf. Figure 3.4.1.2 shows the RQ in percentage of pounds from 2016 to 2020. The dominant communities for black grouper and yellowfin grouper pounds landed included the communities of Madeira Beach, Fort Myers, and Cortez, Florida (Figure 3.4.1.2). All of the top 10 communities are located in central to south Florida. Several of the top communities are located in Pinellas County (Madeira Beach, Redington Shores, Tarpon Springs, Indian Shores, and St. Petersburg) and are within close proximity to each other. Cortez, Florida is also located nearby in the adjacent county of Manatee County. Four of the top communities are located in south Florida (Fort Myers, Fort Myers Beach, Key West, and Naples).

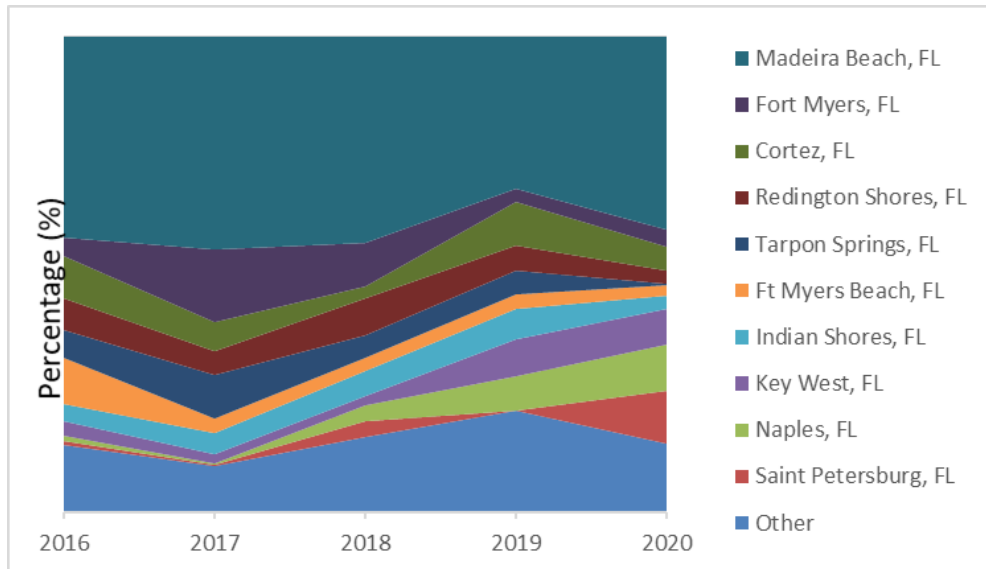


Figure 3.4.1.2. Regional Quotient for top communities by landings of Gulf Black Grouper and Yellowfin Grouper from 2016 through 2020.

Source: IFQ database accessed 4/2/25.

Scamp Complex: Scamp and Yellowmouth Grouper

The RQ for scamp and yellowmouth grouper is the proportion of the species landed within a community out of the total amount of the species landed within the Gulf. Figure 3.4.1.3 shows the RQ in percentage of pounds from 2016 to 2020. The dominant communities for scamp and yellowmouth grouper pounds landed included the communities of Madeira Beach, Panama City, and Apalachicola, Florida and Golden Meadow, Louisiana (Figure 3.4.1.3). The top communities for scamp and yellowmouth grouper closely match the top communities for Other SWG with a few variations because scamp makes up the majority of Other SWG landings. Several of the top 10 communities are located in Pinellas County, Florida (Madeira Beach, Tarpon Springs, Indian Shores, and Redington Shores) and are within close proximity to each other. Cortez, Florida is also located nearby in the adjacent county of Manatee County. Three of the top communities are located in the Florida Panhandle (Panama City, Apalachicola, and Destin).

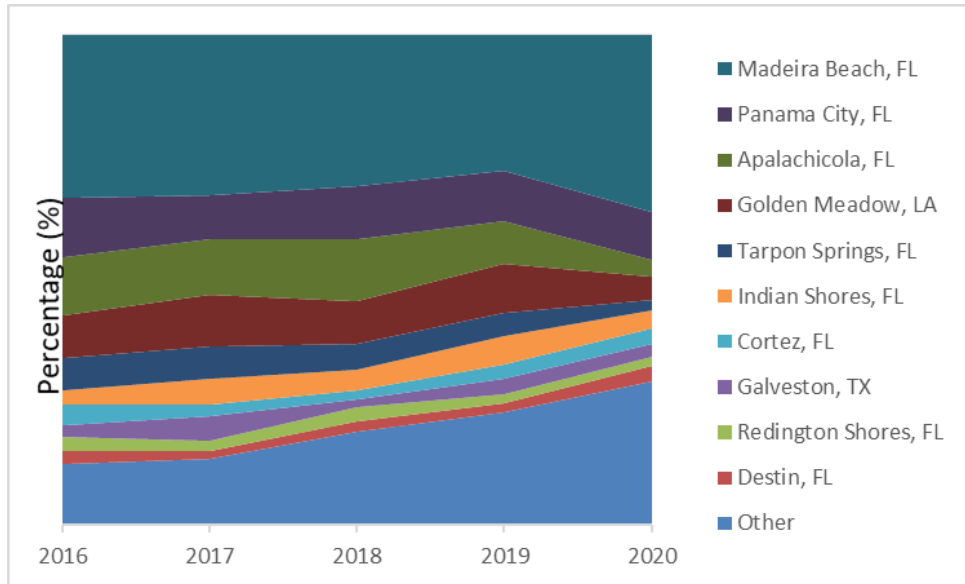


Figure 3.4.1.3. Regional Quotient for top communities by landings of Gulf Scamp and Yellowmouth Grouper from 2016 through 2020.

Source: IFQ database accessed 4/2/25.

Local Quotient

The community Local Quotient (LQ) is the proportion of a particular species or species group landed within that community out of the total of all species landed within that community. It is an indicator of the contribution of the value of those species to the overall landings in a community. Figure 3.4.1.4 shows the LQ in percentage of value for 2023 for the top communities by landings for Other SWG, black grouper and yellowfin grouper, and scamp and yellowmouth grouper as depicted in Figures 3.4.1.1, 3.4.1.2, and 3.4.1.3. LQ values are not included in order to maintain confidentiality. The LQs for all included communities were very low for all species groups with a small proportion of landings for each community made up by Other SWG, black group and yellowfin grouper, or scamp and yellowmouth grouper. The community with the relatively highest LQ is St. Petersburg, Florida. Madeira Beach, Florida also included one of the relatively higher LQs for any of the included species groups. Most communities only included landings of black grouper and/or scamp. Only Key West, Florida and Golden Meadow, Louisiana included landings of yellowfin grouper or yellowmouth grouper. Indian Shores, Florida is not included in Figure 3.4.1.4 because data was not available for this community.

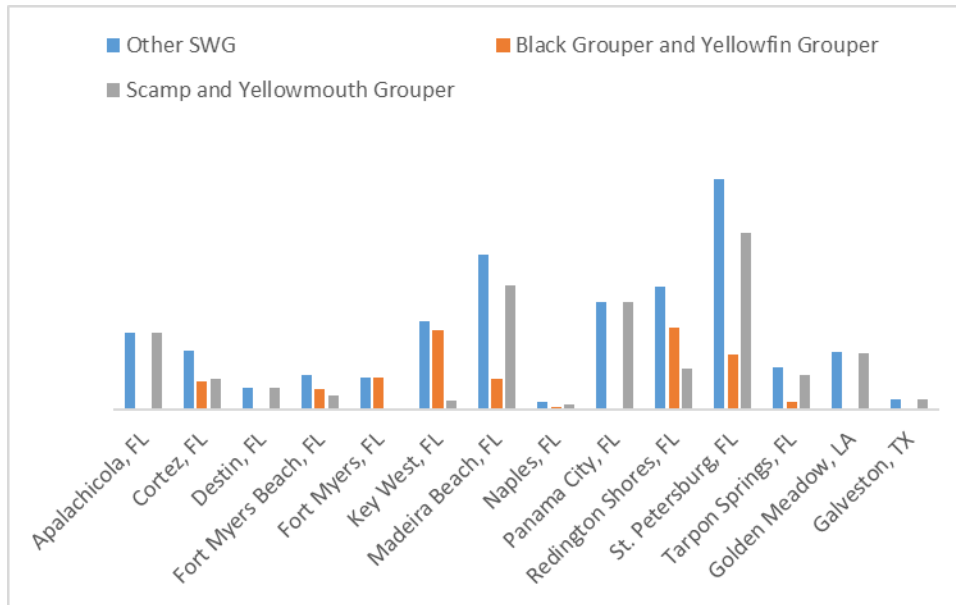


Figure 3.4.1.4. Local Quotient (value) for top communities by landings of Other SWG, Black Grouper and Yellowfin Grouper, and Scamp and Yellowmouth Grouper for 2023. Source: SERO, Community ALS.

Engagement and Reliance

In addition to examining the RQs and LQs to understand how Gulf communities are engaged and reliant on fishing, indices were created using secondary data from permit and landings information for the commercial sector (Jepson and Colburn 2013, Jacob et al. 2013). Fishing engagement is primarily based on the absolute numbers of permits, landings, and value. The analysis used the number of vessels designated commercial by homeport and owner address, value of landings, and total number of commercial permits for each community. Fishing reliance includes the same variables as fishing engagement divided by population to give an indication of the per capita influence of this activity.

Taking the communities with the highest RQs as depicted in Figures 3.4.1.1, 3.4.1.2, and 3.4.1.3, factor scores of both engagement and reliance for commercial fishing were plotted. Two thresholds of one and one-half standard deviation above the mean are plotted onto the graphs to help determine a threshold for significance. The factor scores are standardized; therefore, a score above one is also above one standard deviation. A score above one-half standard deviation is considered engaged or reliant, with anything above one standard deviation to be very engaged or reliant.

Figure 3.4.1.5 is an overall measure of a community’s commercial fishing engagement and reliance. Most communities in Figure 3.4.1.5 would be considered to be highly engaged in commercial fishing, as many are at or above one standard deviation of the mean factor score. Fort Myers, Indian Shores, and Redington Shores, Florida show the least amount of engagement in commercial fishing overall. Apalachicola, Cortez, Fort Myers Beach, Key West, and Madeira Beach, Florida and Golden Meadow, Louisiana demonstrate a moderate to high level of commercial reliance.

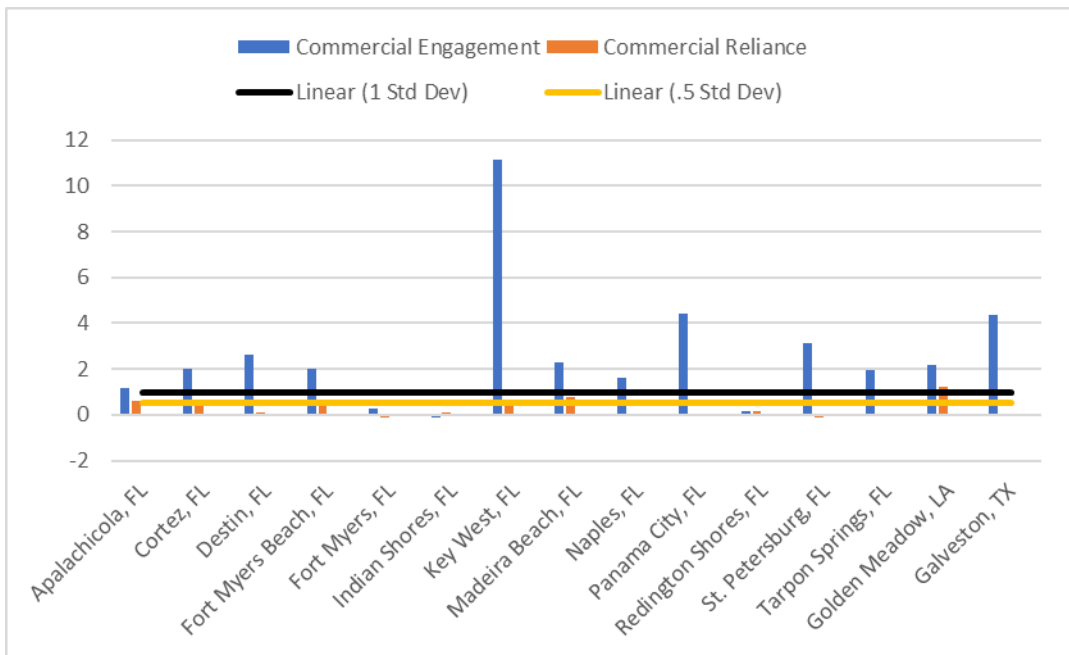


Figure 3.4.1.5. Commercial fishing engagement and reliance for top Other SWG, black grouper and yellowfin grouper, and scamp and yellowmouth grouper communities.
 Source: SERO Community Social Vulnerability Indicators Database 2022.

3.4.2 Recreational Sector

Permits

Charter/headboat for reef fish permits are issued to entities, such as individuals and businesses in Florida (60% of charter/headboat for reef fish vessels), Texas (15.7%), Alabama (10.6%), Louisiana (7.4%), and Mississippi (2.6%, SERO permit office, July 8, 2021). Residents of other states (Arkansas, Arizona, California, Colorado, Georgia, Illinois, Michigan, Missouri, Montana, North Carolina, New Jersey, New York, Ohio, Oklahoma, Tennessee, Virginia, and Wisconsin) also hold charter/headboat permits, but these states represent a smaller percentage of the total number of issued permits.

Charter/headboat for reef fish permits are held those with mailing addresses in 355 communities (SERO permit office, July 8, 2021). Communities with the most charter/headboat for reef fish permits are located in Florida, Alabama, and Texas (Table 3.4.2.1). The communities with the most charter/headboat permits are Panama City, Florida (4.6% of charter/headboat permits), Destin, Florida (4.4%), and Orange Beach, Alabama (4.1%).

Table 3.4.2.1. Top Gulf communities by number of charter/headboat for reef fish permits.

State	Community	Charter/Headboat for Reef Fish Permits (RCG)
FL	Panama City	65
FL	Destin	62
AL	Orange Beach	57
FL	Naples	45
FL	Key West	43
FL	Pensacola	30
FL	Sarasota	27
FL	St. Petersburg	23
TX	Galveston	21
FL	Panama City Beach	19
TX	Corpus Christi	19
FL	Cape Coral	18
FL	Clearwater	18
FL	Fort Myers	18
FL	Crystal River	16
FL	Tampa	16
FL	Gulf Breeze	14

Source: SERO permit office, July 8, 2021

Landings

Recreational Landings for the species included in the Other SWG complex are collected across both the Fishing Effort Survey and Marine Recreational Fishery Statistics Survey, which are not directly comparable. Looking at data from 2020 through 2024 for landings of the SWG species, across both surveys, the majority of annual recreational landings of the SWG species are in Florida waters, but the species are landed across the Gulf. Scamp landings account for the vast majority of landings, followed by Black Grouper (SEFSC Recreational MRFSS ACL Dataset and LA Creel).

Headboat Regional Quotient

Figures 3.4.2.1 and 3.4.2.2 show the top Gulf communities based on a regional quotient (RQ) of recreational headboat landings for black grouper and scamp complexes for 2020 through 2024. The RQ is the proportion of landings in the listed homeports for the headboats out of the total SRHS landings for that region and is a relative measure. The RQ is calculated as the homeports' average proportion of the total number of each complexes' landings by SRHS vessels during this time period (SEFSC SRHS, 2020-2024) and is presented below in Figure 3.4.2.1, in descending order. RQ values are not included in order to maintain confidentiality. The top headboat homeports reporting black grouper or scamp complex landings are concentrated in Florida and Texas. Headboats with homeports in Louisiana, Alabama, and Mississippi landed a very small proportion of these two complexes.

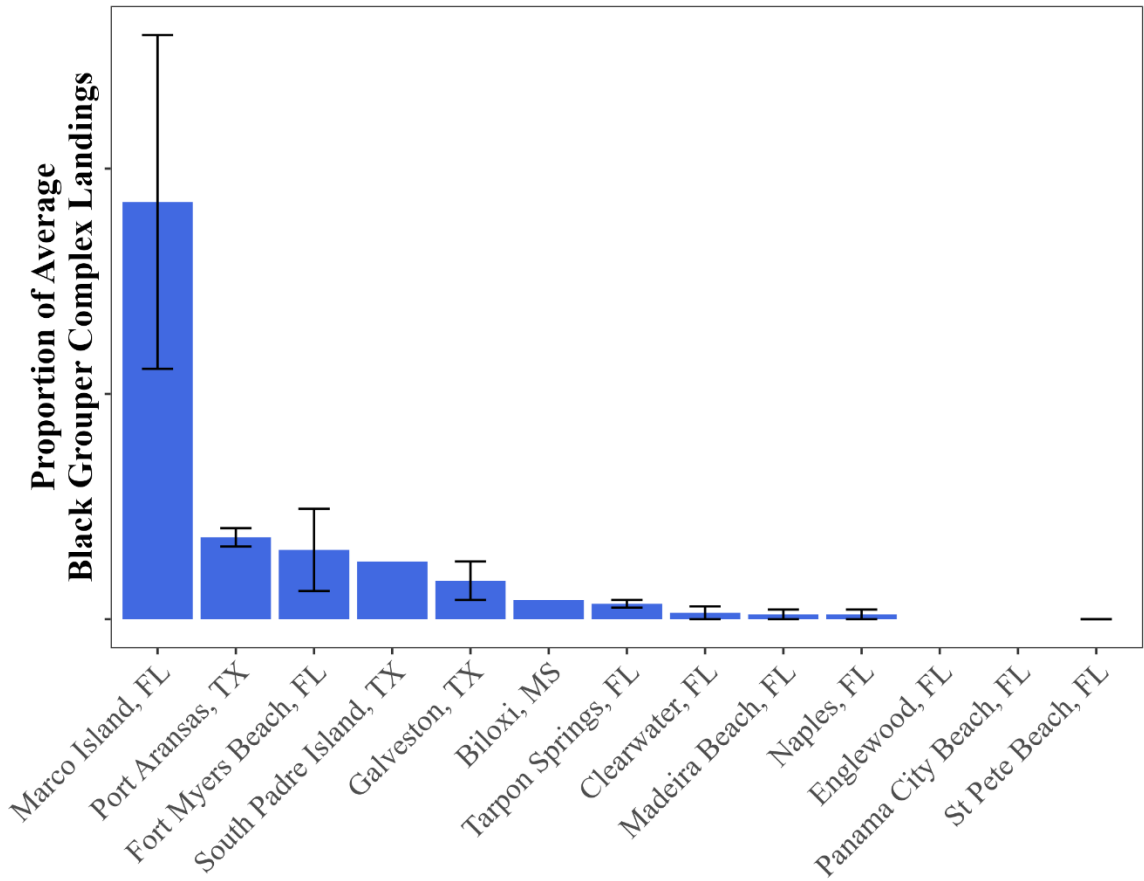


Figure 3.4.2.1. Headboat RQ-average proportion of black grouper complex landings by community for headboats included in the SRHS.
 Source: SEFSC SRHS, 2020-2024.

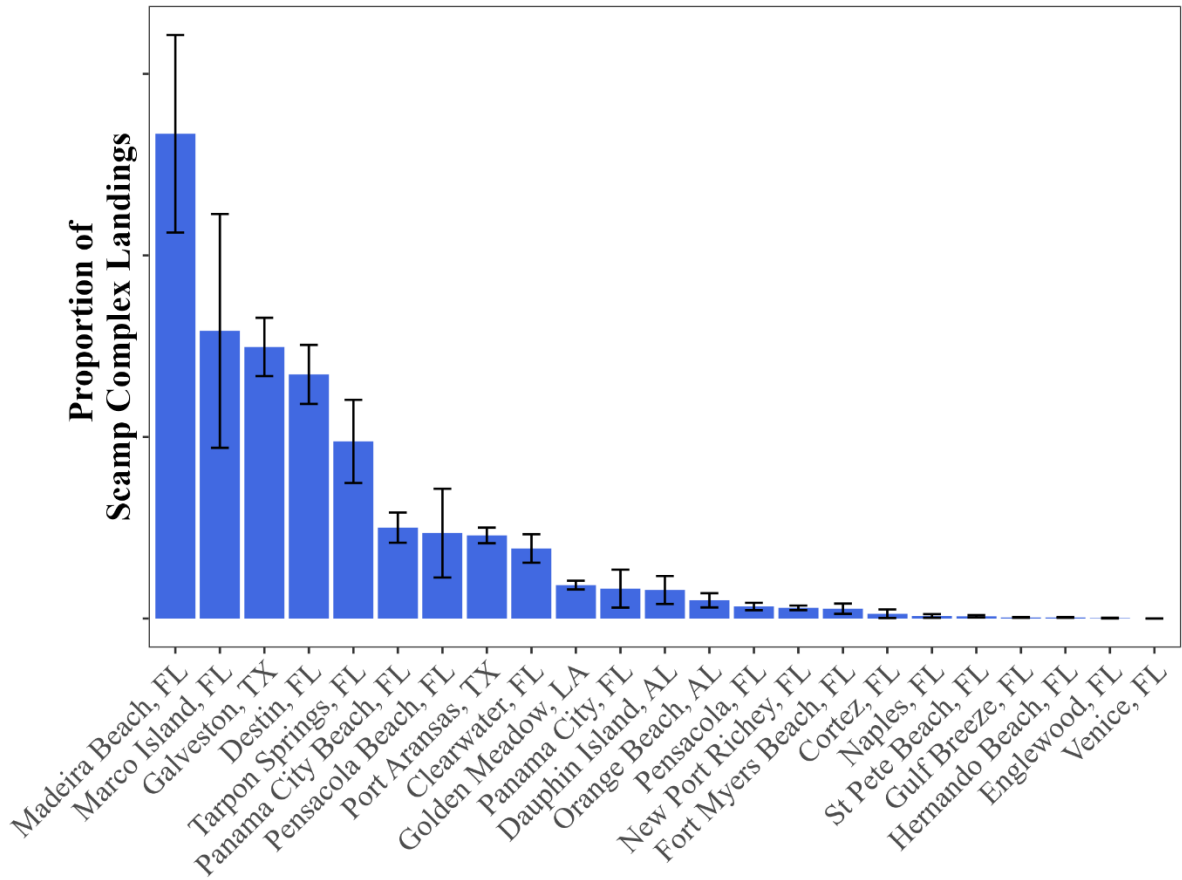


Figure 3.4.2.2. Headboat RQ-average proportion of scamp complex landings by community for headboats included in the SRHS.

Source: SEFSC SRHS, 2020-2024.

Engagement and Reliance

Landings for the recreational sector based on fisheries survey data are not an accurate representation of the species caught at the community level, making it difficult to identify communities as dependent on recreational fishing for the black grouper and scamp complexes. Because limited data are available concerning how communities are engaged and reliant on specific species in the recreational sector, indices were created using secondary data from permit and infrastructure information for the southeast recreational fishing sector at the community level (Jepson and Colburn 2013, Jacob et al. 2013). Recreational fishing engagement is represented by the number of recreational vessels designated as “recreational” by homeport and owner’s address and the number of recreational fishing survey sites in a particular community. Fishing reliance includes the same variables as fishing engagement, divided by population. Factor scores of both engagement and reliance were plotted by community.

Figure 3.4.2.3 identifies the Gulf communities that are the top communities by engagement in recreational fishing in general. Two thresholds of one and one-half standard deviation above the mean were plotted to help determine a threshold for significance. Communities are presented in ranked order by fishing engagement and all included communities demonstrate high levels of

recreational engagement, although this is not specific to fishing for the species included in the new complexes. Because the analysis used discrete geo-political boundaries, Panama City and Panama City Beach had separate values for the associated variables. Calculated independently, each still ranked high enough to appear in the top list, suggesting a greater importance for recreational fishing in that area. The communities of Venice, Louisiana; Tavernier; Florida; Islamorada, Florida; Orange Beach, Alabama; Port Aransas, Texas; Destin, Florida; Key West, Florida; Marathon, Florida; and Crystal River, Florida demonstrate the highest reliance on recreational fishing. The communities of Naples and Fort Myers Beach, Florida demonstrate a moderate to high reliance.

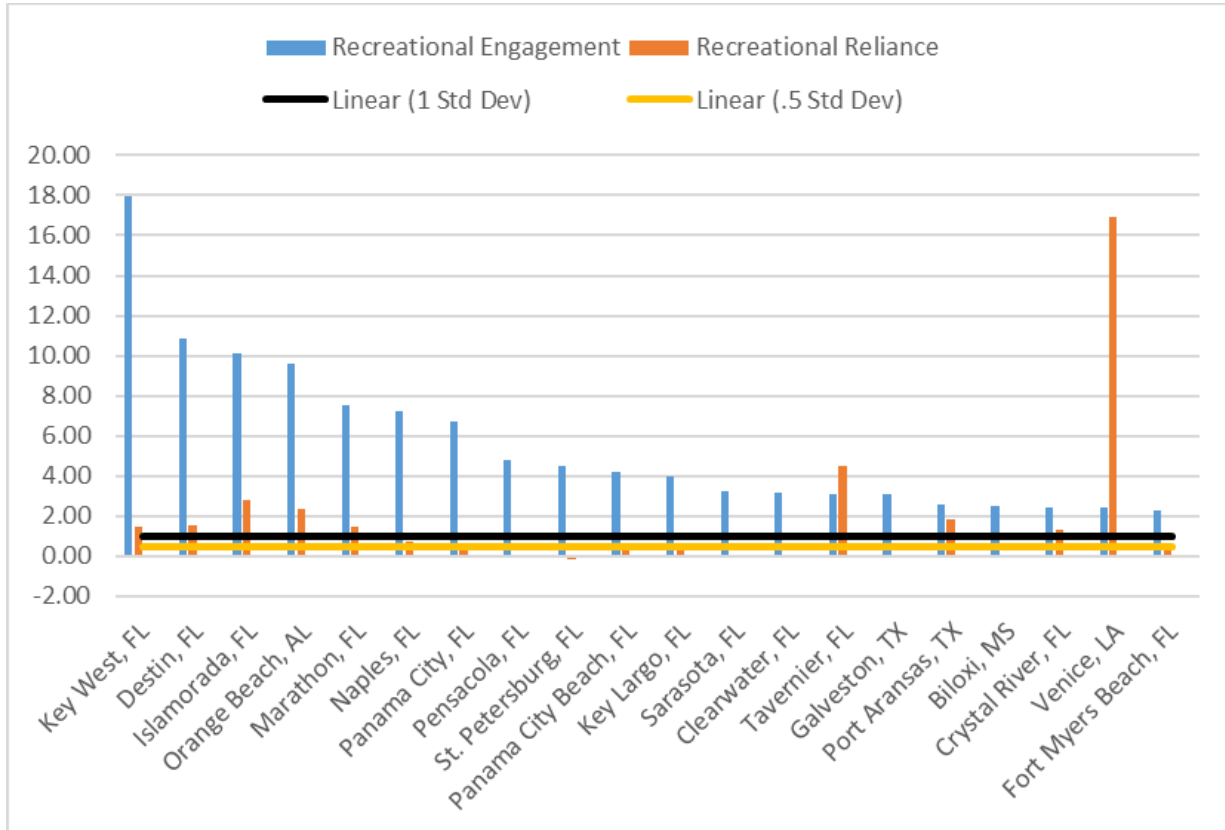


Figure 3.4.2.3 Recreational fishing engagement and reliance for top Gulf communities. Source: SERO, Community Social Vulnerability Indicators Database 2022.

3.4.3 Social Vulnerability

A suite of indices was created using census data to examine the social vulnerability of coastal communities. The three indices are poverty, population composition, and personal disruption. The variables included in each of these indices have been identified through the literature as being important components that contribute to a community’s vulnerability. Poverty includes poverty rates for different groups; population composition includes more single female-headed households, households with children under the age of five, minority populations, and those that speak English less than well; and personal disruption includes disruptions such as higher separation rates, higher crime rates, and unemployment. Increased rates in the indicators are

signs of populations experiencing vulnerabilities. Again, for those communities that exceed the threshold it would be expected that they would exhibit vulnerabilities to sudden changes or social disruption that might accrue from regulatory change.

Figures 3.4.3.1 and 3.4.3.2 provide social vulnerability rankings for place-based communities identified in Section 3.4 as important to commercial and recreational fishing for black grouper, yellowfin grouper, scamp, and yellowmouth grouper specifically; fishing for reef fish; or marine fishing in general. Several communities exceed the threshold of one standard deviation above the mean for at least one of the indices (Bayou La Batre, Alabama; Bokeelia, Florida; Steinhatchee, Florida; and Venice, Louisiana). These communities would be the most likely to exhibit vulnerabilities to social or economic disruption resulting from regulatory change.

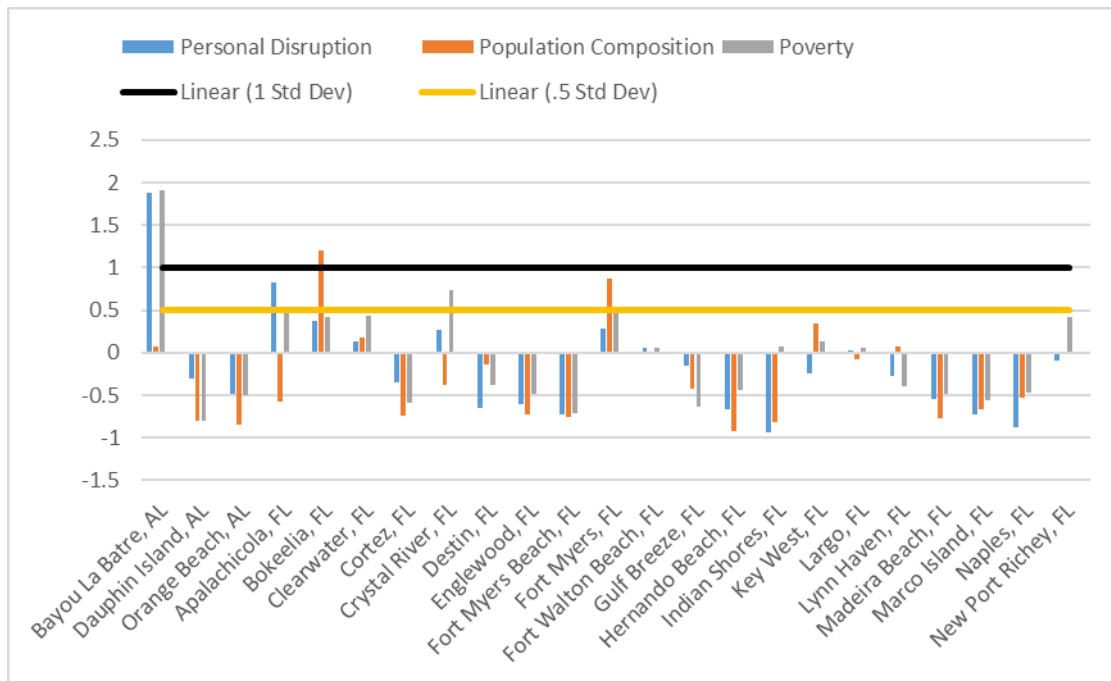


Figure 3.4.3.1. Social vulnerability indices for top commercial and recreational reef fish, Other SWG, black grouper complex, and scamp complex communities.

Source: SERO, Community Social Vulnerability Indicators Database 2022.

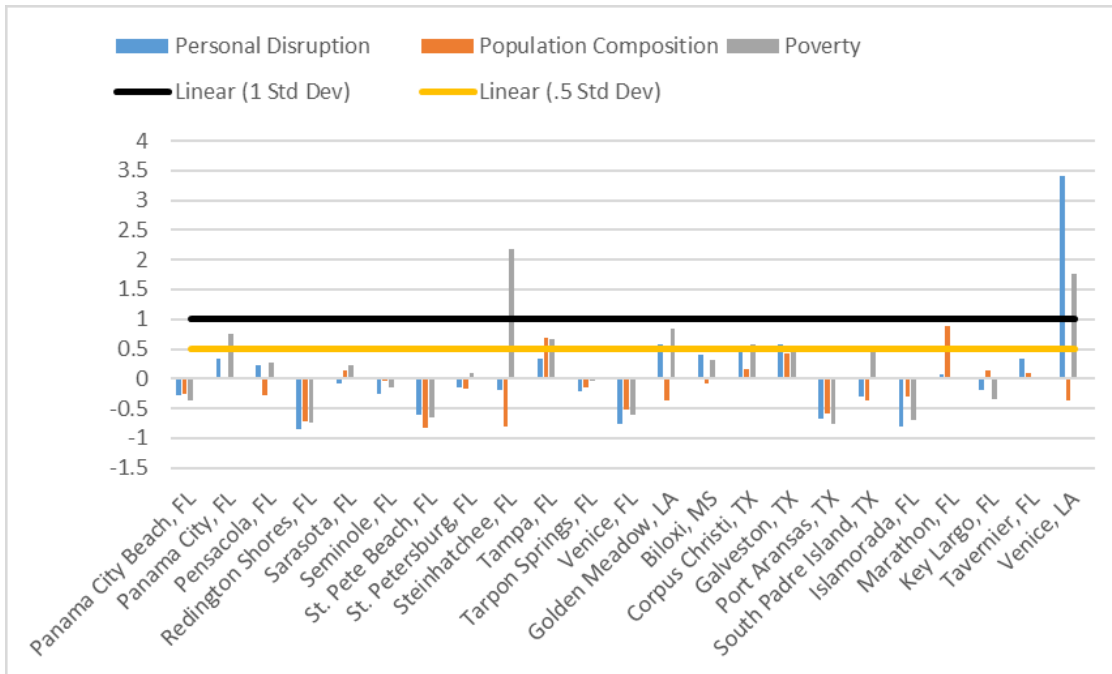


Figure 3.4.3.2. Social vulnerability indices for top commercial and recreational reef fish, Other SWG, black grouper complex, and scamp complex communities continued.

Source: SERO, Community Social Vulnerability Indicators Database 2022.

The description of fishing activities presented here highlights which communities may be most involved in black grouper, yellowfin grouper, scamp, and yellowmouth grouper fishing. It is expected that the impacts from the regulatory actions in this amendment, whether positive or negative, will most likely affect those communities identified above.

3.5 Description of the Administrative Environment

3.5.1 Federal Fishery Management

Federal fishery management is conducted under the authority of the Magnuson-Stevens Act (16 U.S.C. 1801 *et seq.*), originally enacted in 1976 as the Fishery Conservation and Management Act. The Magnuson-Stevens Act claims sovereign rights and exclusive fishery management authority over most fishery resources within the EEZ. The EEZ is defined as an area extending 200 nautical miles from the seaward boundary of each of the coastal states. The Magnuson-Stevens Act also claims authority over U.S. anadromous species and continental shelf resources that occur beyond the EEZ.

Responsibility for federal fishery management decision-making is vested with the Secretary of Commerce (Secretary) who reviews and implements fishery management plans prepared by eight regional fishery management councils that represent the expertise and interests of constituent states. In most cases, the Secretary has delegated this authority to NMFS.

The Gulf Council is responsible for fishery resources in federal waters of the Gulf. For reef fish, these waters extend 200 nautical miles offshore from the seaward boundaries of Alabama, Florida, Louisiana, Mississippi, and Texas, as those boundaries have been defined by law. The length of the Gulf coastline is approximately 1,631 miles. Florida has the longest coastline extending 770 miles along its Gulf coast, followed by Louisiana (397 miles), Texas (361 miles), Alabama (53 miles), and Mississippi (44 miles).

The Gulf Council consists of seventeen voting members: 11 public members appointed by the Secretary; one each from the fishery agencies of Texas, Louisiana, Mississippi, Alabama, and Florida; and one from NMFS. The public is also involved in the fishery management process.

3.5.2 State Fishery Management

The purpose of state representation at the Council level is to ensure state participation in federal fishery management decision-making and to promote the development of compatible regulations in state and federal waters. The state governments of Texas, Louisiana, Mississippi, Alabama, and Florida have the authority to manage their respective state fisheries. Each of the five Gulf states exercises legislative and regulatory authority over their states' natural resources through discrete administrative units. Although each agency is the primary administrative body with respect to the states' natural resources, all states cooperate with numerous state and federal regulatory agencies when managing marine resources. Descriptions of individual state management and data collection programs can be found at the Web Pages shown in Table 3.5.2.1.

Table 3.5.2.1. Gulf state marine resource agencies and web pages.

State Marine Resource Agency	Web Page
Alabama Marine Resources Division	http://www.outdooralabama.com/
Florida Fish and Wildlife Conservation Commission	http://myfwc.com/
Louisiana Department of Wildlife and Fisheries	http://www.wlf.louisiana.gov/
Mississippi Department of Marine Resources	http://www.dmr.ms.gov/
Texas Parks and Wildlife Department	http://tpwd.texas.gov/

CHAPTER 4. ENVIRONMENTAL CONSEQUENCES

4.1 Action 1: Modification of the Gulf of America (Gulf) Other Shallow-water Grouper (SWG) Complex and Individual Fishing Quota (IFQ) Shares Categories

4.1.1 Effects on the Physical Environment

The commercial sector of the reef fish fishery is conducted using vertical line (i.e., electric reel, bandit rig, hook-and-line, and trolling) and longline gear. The recreational sector (headboat, charter, private vessels, and shore modes) primarily uses vertical line gear (hook-and-line). Reef fish are also harvested by spearfishing in both the commercial and recreational sectors; however, the proportion of SWG recreational landings attributable to this harvest method is estimated to be low compared to hook-and-line. In the Gulf, a majority of commercial SWG landings reported indicated that longline and vertical line were the predominant gears used. For the recreational sector, a majority of SWG landings indicated that hook-and-line fishing was the predominant gear used.

Anchor damage is also associated with vertical line fishing vessels, particularly by the recreational sector, where fishermen may repeatedly visit well marked or known fishing locations. Hamilton (2000) pointed out that “favorite” fishing areas such as reefs are targeted and revisited multiple times, particularly with the advent of GPS technology. The cumulative effects of repeated anchoring could damage the hard bottom areas where reef fish fishing occurs, which may be exacerbated by repeated drops of weighted fishing rigs onto the reef. Recreational and commercial vessels that use vertical line gear are typically known to anchor more frequently over reef sites. Since the mid-2010s, private recreational and charter for-hire vessels have increasingly adopted the use of bow-mounted electric trolling motors with GPS, allowing these vessels to remain at a geographic point without the need of a traditional anchor. The continued adoption of this method of staying on location when fishing would be expected to decrease direct interactions with the physical environment by these vessels from traditional anchoring practices (Capt. Dylan Hubbard, pers. comm, 2024).

Commercial harvesting for reef fish using longline gear occurs over hard bottom habitats using weights to keep the gear in direct contact with the bottom. The potential for this gear to adversely impact the bottom depends on the type of habitat it is set on, the presence or absence of currents and the behavior of fish after being hooked. In addition, this gear, upon retrieval, can abrade, snag, and dislodge smaller rocks, corals, and sessile invertebrates (Hamilton 2000; Barnette 2001). Direct underwater observations of longline gear in the Pacific halibut fishery by High (1980) noted that the gear could sweep across the bottom. A study that directly observed deployed longline gear (Atlantic tilefish portion of the snapper-grouper fishery) found no evidence that the gear shifted significantly, even when set in currents (Grimes et al. 1982).

Alternative 1 (No Action) would retain the four species Other Shallow-water Grouper (SWG) Complex (scamp, yellowmouth grouper, black grouper, and yellowfin grouper). **Preferred Alternative 2** would dissolve the existing Other SWG complex and form two new complexes: one consisting of scamp and yellowmouth grouper (Scamp Complex) and another consisting of black grouper and yellowfin grouper (Black Grouper Complex). **Preferred Alternative 2** would also create two new IFQ share categories: one for the Scamp Complex and one for the Black Grouper Complex. This action is not expected to impact the physical environment and any effects from this action are not expected to be significant. Both **Alternative 1** and **Preferred Alternative 2** would affect the way the complexes are structured for management but would not modify fishing effort for Other SWG species. The Other SWG complex structure needs to be modified as considered in **Preferred Alternative 2** because of the need to separate the species for management purpose to address the stock assessment that included scamp and yellowmouth grouper.

4.1.2 Effects on the Biological and Ecological Environment

SEDAR 68 assessed scamp and yellowmouth grouper together and provided updated catch advice that requires a reduction in harvest. There is no stock assessment for black grouper and yellowfin grouper and no information that indicates a need to reduce catch levels for these species.

Alternative 1 (No Action) would retain the Other SWG Complex, which not allow for management of the four species to be consistent with the best scientific information available. **Preferred Alternative 2** would address the stock assessment for scamp and yellowmouth grouper and allow for the establishment of separate catch limits for the Scamp Complex and Black Grouper Complex. Therefore, **Preferred Alternative 2** is likely to have a positive biological effect relative to **Alternative 1**. However, **Preferred Alternative 2** does not include the current flexibility measures that exist in the IFQ program between the Other SWG and Deepwater Grouper (DWG) share categories. These measures were put in place to reduce discards and allow commercial fishermen to better use the allocation they have in a given fishing year and allow, under certain circumstances, scamp to be landed under the DWG allocation, and warsaw grouper or speckled hind to be landed under Other SWG allocation. Thus, **Preferred Alternative 2** could result in minor negative biological effects if the flexibility measures did reduce discards and it results in more discards.

Expected effects on discards and bycatch of co-occurring species

Bycatch does occur within the reef fish fishery. If fish are released due to catch limits, seasons, or other regulatory measures, these fish are considered bycatch. In general, reducing bycatch provides biological benefits to managed species as well as benefits to the reef fish fishery through less waste, higher yields, and, thus, less forgone yield. In some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum sizes and closed seasons. Under these circumstances, biological benefit to the managed species through the approved action is estimated to outweigh any increases in discards from the action.

With regard to Action 1, no significant changes in bycatch are expected regardless of the alternative.

Expected effects to protected species

Bycatch of protected species can occur when targeting reef fish in the Gulf of America (Gulf). Specifically, sea turtles have been observed to be incidentally captured by the bottom longline component of the Gulf reef fish fishery. These captures can result in injury or mortality of the animal (GMFMC, 2010).with regard to marine mammal species, indicating the gear has little effect on these populations.

This action would not significantly modify the way in which the reef fish fishery is prosecuted in terms of gear types, overall effort, seasons, or areas fished. Therefore, there are no additional impacts on ESA-listed species or designated critical habitats anticipated as a result of this action (see Section 3.2 for a more detailed description of ESA-listed species and critical habitat in the action area). The predicted effects on ESA-listed species and designated critical habitats are applicable to all actions in this plan amendment.

4.1.3 Effects on the Economic Environment

Preferred Alternative 2 dissolves the existing Other SWG complex and forms two new complexes. Without additional aspects of the two new complexes characterized, the economic effects to the commercial sector and to the recreational sector cannot be quantified, in relation to **Alternative 1** (No Action). However, the economic effects to both sectors are expected to be positive, as long-term management of the four species may improve under the two new complexes in contrast to a single Other SWG complex. Currently, flexibility measures exist in the IFQ program between the Other SWG and Deep-water Grouper (DWG) share categories, as established in Amendment 29 to the Reef Fish FMP (GMFMC 2008). To allow for this flexibility, the Other SWG and DWG quotas are set below the respective complex ACLs. Because the flexibility measures are not included in **Preferred Alternative 2**, the commercial quotas for the Scamp Complex, Black Grouper Complex, and DWG Complex would be set equal to the commercial ACLs, with no buffer, which may lead to economic effects for those who participate in the IFQ program. Lastly, while **Preferred Alternative 2** caps the number of shares any one individual account may possess for each new complex at 7.266147%, this share cap on individuals is not anticipated to significantly affect the commercial sector as a whole; the share cap percentage is retained from Amendment 29, where it was applied to the Other SWG complex.

4.1.4 Effects on the Social Environment

Alternative 1 (No Action) would retain the current Other SWG Complex share category. **Alternative 1** is inconsistent with the best scientific information available and is therefore not a viable alternative. **Preferred Alternative 2** incorporates updated catch advice from the assessment of scamp and yellowmouth grouper in SEDAR 68. The social effects of **Preferred Alternative 2** should be considered in concert with the other proposed actions in this

amendment, as well as the Other SWG Framework Action. Although the Other SWG share category has the lowest quota utilization amongst Grouper-Tilefish IFQ share categories, the consequences of this action extend beyond Other SWG species. This action would modify the structure of the IFQ program by changing share categories and removing flexibility mechanisms which would result in a change in access to the grouper fishery. This action would create two new share categories for one species complex that is incidentally harvested throughout the Gulf (Scamp) and one species complex that is geographically limited to the southern Gulf (Black Grouper) and award shares based on prior ownership of Other SWG shares and not species-specific landings. This action proposes the first change to the IFQ categories since the introduction of the program and would impact the allocation and shares available to fishers. As a change to the IFQ program and affecting a multi-species share category that is largely used for incidental or geographically limited capture with low quota utilization, it is difficult to predict impacts on fishing behaviors and effort throughout the Gulf. However, this action would help to reduce the negative social impacts of limited fishing opportunities for black grouper and yellowfin grouper under the SWG Framework Action. Although harvest for black and yellowfin grouper has been low, this action will allow the harvest of these species to continue even once the newly reduced catch limits for scamp and yellowmouth grouper has been met.

Under **Preferred Alternative 2**, a holder of any percent of SWG shares would receive the equivalent percent of Black Grouper and Scamp Complex shares, such that, if a shareholder possessed 1% of Other SWG shares, they would receive both 1% of Black Grouper Complex and 1% of Scamp Complex shares. Although **Preferred Alternative 2** would see a holder of 1% of Other SWG shares receive two new types of shares, the ACLs established in later actions in this amendment for each new category would be a reduction from the 2014-2025 ACL of the Other SWG share category. The combined impacts of these actions would be that a shareholder of Other SWG IFQs receive more shares but less allocation because of a reduction in ACL for the Scamp Complex. The exact amount of allocation would depend on subsequent actions, namely Actions 2 and 5 and will be discussed in more detail in the following actions.

Preferred Alternative 2 would act as the first step in implementing the advice from the SEDAR 68 stock assessment to reduce the harvest of scamp and yellowmouth grouper by ~58% through the creation of a Scamp Complex, separating these species from the other SWG species (black grouper and yellowfin grouper) so that this reduction isn't applied to all SWG species. Following this advice while keeping the Other SWG share category (**Alternative 1**, which is not a viable alternative), as was implemented in the SWG Framework Action, would result in a major reduction of overall catch particularly affecting the ability of fishermen to harvest Black Grouper Complex species. **Preferred Alternative 2** would help provide benefits to harvesters of black grouper and yellowfin grouper by creating a separate complex, which would allow them to continue to harvest the species at existing levels of effort (Action 2) while allowing scamp the opportunity to recover. The effects of decreased Scamp allocation will be discussed with Action 5.

Preferred Alternative 2 would be a major change for the Grouper-Tilefish IFQ program. The IFQ program contributed to intended and unintended social changes in the fishery and the social effects of any further changes to the program would be difficult to predict. This is the first time that share categories have changed since the establishment of the program by Amendment 29 in

the Reef Fish FMP (GMFMC 2008b). Following the implementation of the IFQ program, the ratio of landings between species of the Other SWG category changed, where the ratio of scamp increased, and black grouper decreased (NMFS 2025). The commercial landings (by weight) of both scamp and black grouper decreased following their incorporation into the IFQ program under the Other SWG category. Although other factors contributed to these trends, the structure of the IFQ program itself has impacted the choice by commercial fishermen to land, target, and expend effort on certain species. For example, in previous research, commercial fishermen argue that the implementation of the Grouper-Tilefish IFQ program discouraged a method of fishing “over the entire resource” and encouraged fishermen to specialize in particular species (Griffith 2018). A change to this structure by introducing new share categories would further affect choices to land or target species and choices to secure or trade shares and allocation.

Although these administrative shifts would not reward specialization by awarding shares based on landings as occurred at the start of the IFQ program, the increased administrative and economic load of having to buy more types of shares or allocation in order to land the same species could lead to increased specialization and increased discards in non-targeted species. Fishermen don’t uniformly catch all Other SWG species at the same levels throughout the Gulf and the creation of separate complexes could cause fishermen to have to buy shares or allocation of the new complexes at a different price range in order to land what they have caught historically. In addition, fishermen will likely sell shares or allocation for the species complex that they haven’t landed, increasing the buying and selling of shares and allocation for these species. If the selling of allocation increases while the selling of shares does not, this could further perpetuate the issue of ownership of IFQ shares not being in the hands of those who are fishing it, with an increase in owners of quota who sell their annual allocation and an increase in those who are reliant on purchasing annual allocation. These allocation costs could be passed onto captains and crew members and negatively impact their income (Griffith et al. 2016).

The current IFQ program includes flexibility measures between species included in the Other SWG and DWG shares. As mentioned in the discussion of Action 1, **Preferred Alternative 2** would result in a removal of flexibility measures between DWG and Other SWG. The commercial quota for Other SWG can include landings of speckled hind and warsaw grouper, species that are part of the DWG complex. A large proportion of speckled hind (71% in 2023) is landed using Other SWG allocation, whereas a smaller proportion of warsaw grouper (11%) is landed using Other SWG allocation. Anecdotally, it has been reported that some participants use this flexibility measure to purchase Other SWG allocation to land DWG species because Other SWG allocation is less expensive than DWG allocation. This loss of flexibility measures could result in effects on DWG share prices and availability and negatively impact those who land DWG species. The removal of the 4%³⁰ buffer in the DWG Complex, however, would positively affect harvesters of DWG species by allowing them to harvest their full commercial ACL. Coupled with recent changes to DWG proposed in Amendment 58B that would halve the commercial allocation to the Reef Fish FMP and a recent \$6/lb drop in DWG share prices in

³⁰ The 4% reduction in the commercial quota from the commercial ACL was implemented with the Grouper-Tilefish Individual Fishing Quota (IFQ) program. The buffer accounts for flexibility measures which allow for a system of cross-use of allocation between the DWG and Other Shallow-water Grouper share categories, and for any other variability in landings associated with the institution of the program or new participation.

2024 (NMFS 2025), the exact nature of these changes is difficult to predict, but it can be assumed that it will become increasingly challenging to land DWG species. **Preferred Alternative 2**, in conjunction with Amendment 56 to the Reef Fish FMP, which established a gag rebuilding plan, would result in only one operative flexibility measure in the Grouper-Tilefish IFQ program. The loss of flexibility measures between Other SWG and Other DWG and an increased rigidity in the IFQ program could offer some disruption to the current social and economic operation of the fishery.

4.1.5 Effects on the Administrative Environment

Alternative 1 (No Action) would retain the current composition of the Other SWG complex; and therefore, result in no change to the regulatory environment. **Preferred Alternative 2** would not substantially modify the regulatory environment by splitting the existing Other SWG complex into two new categories: Black Grouper Complex (black grouper and yellowfin grouper) and Scamp Complex (scamp and yellowmouth grouper). **Preferred Alternative 2** would require rulemaking, and to date, no Gulf reef fish complex has been dissolved into separate complexes. This would create an initial administrative burden to build out and warehouse IFQ databases that support the program and would require substantial updates to account for the modified workflow resulting from breaking out the complex. Additionally, webpage and outreach would be required to inform and educate participants on how to account for IFQ landings and transactions for the new complexes.

4.2 Action 2: Establish Maximum Sustainable Yield (MSY), Optimum Yield (OY), Status Determination Criteria (SDC), Catch Limits, and Sector Allocations for the Black Grouper Complex

4.2.1 Effects on the Physical Environment

Alternative 1 (No Action) is not a viable alternative because it any of the required any of the required reference points, status determination criteria or catch limits required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act) establish the required reference points, status determination criteria and catch limits, specify **Preferred Alternative 2** will set limits on harvest and, therefore, limit impacts to the physical environment caused by fishing as detailed in Section 4.1.1.

4.2.2 Effects on the Biological and Ecological Environment

Effects from fishery management actions as they relate to SWG species have been discussed in detail in GMFMC (2011a) and are incorporated here by reference. Management actions that affect the biological and ecological environments primarily relate to the impacts of fishing on a species' population size, life history, and the role of the species within its habitat. Removal of fish from a population through fishing reduces the overall population size. Fishing gear types have different selectivity patterns, which refer to a fishing method's ability to target and capture a species by size (length) and age. Selectivity patterns also include discards, which are mostly comprised of sublegal sized fish or fish caught during seasonal closures, and the mortality associated with releasing these fish.

Fishing can affect life history characteristics of reef fish, such as growth and maturation rates. Grouper reproduction may also be impacted by fishing. As an example, Fitzhugh et al. (2006) reported the size at which 50% of female gag (*Mycteroperca microlepis*) are sexually mature, and the size at which 50% of females transition to males, was smaller in their studies compared to earlier years. In addition, for hermaphroditic species (like Other SWG species), fishing pressure has been suggested as influential to changes in sex ratios. Again, looking to gag, the proportion of males in the population decreased from historical levels of 17% (Hood and Schlieder 1992) to 2-10% in the 1990s (Coleman et al. 1996), to approximately 2% in 2020 (SEDAR 72 2022). A decline in the ratio of male to female grouper could be an ongoing source of concern depending on the reproductive strategy of a particular species. Furthermore, for species that aggregate, there is a particular vulnerability to fishing because the species is concentrated at specific locations. This problem is magnified at greater depths. At the depths common to Other SWG fishing (adult scamp are common at depths of 91 - 327 m [299 – 1,073 ft]; Farmer et. al., 2016), these species are expected to be vulnerable to mortality from barotrauma when hooked at depth and then reeled to the surface.

Bycatch, or fish released due to regulatory measures or angler preferences, does occur within the reef fish fishery. In general, reducing bycatch provides biological benefits to managed species as well as benefits to the reef fish fishery through less waste, higher yields, and, thus, less forgone yield. In some cases, actions are approved that can increase bycatch through regulatory discards such as increased minimum size limits and closed seasons. Under these circumstances, any biological benefit to the managed species through the approved action is estimated to outweigh any negative effects from increases in discards from the action. as detailed in Section 3.2

As discussed in section 2.2 not establishing SDC, or catch limits is not a viable alternative under the Magnuson-Stevens Act. **Preferred Alternative 2** would establish these management metrics consistent with the best scientific information available. Therefore, **Preferred Alternative 2** would have a positive effect on the biological environment relative to **Alternative 1**.

Expected effects to discards and co-occurring species

Preferred Alternative 2 is not expected to affect discards of black grouper or yellowfin grouper for either sector. Based on historical catch rates, neither sector is expected to reach its ACL and thus discards would result from size limits, rather than the catch limits that are the subject of this

action. **Preferred Alternative 2** is not expected to have measurable impacts on any other component of the biological environment, because of the multi-species nature of the reef fish fishery. Fishing effort may shift to or from other species and away or towards Black Grouper Complex species specifically but is not expected to change the prosecution of the fishery as a whole.

4.2.3 Effects on the Economic Environment

For both the commercial and recreational sectors, establishing biological reference points and status determination criteria are expected to have a positive economic effect, as a result of the management of stock health for the Black Grouper Complex.

Commercial Sector

For the commercial sector, the comparison of effects is based on the resulting commercial ACL (227,000 lb gw) from **Preferred Alternative 2** relative to that of the 5-year average (2019-2023) of historical commercial landings (28,238 lb gw) under **Alternative 1**. The commercial sector has not been constrained in its landings in recent years, so historical commercial landings represent what the sector may utilize if the complex ACL, commercial ACL, and recreational ACL are not established. A quantitative approach to analyze the commercial consumer surplus (CS) and producer surplus (PS) is used to examine the effects of a marginal increase in the commercial ACL. However, as the commercial ACL in **Preferred Alternative 2** is greater than the 5-year average of historical commercial landings by a factor of 8, a qualitative description of the expected economic effects is used. If black grouper landings were to increase relative to historical landings as a result of an increase in the commercial ACL, then the change in commercial CS would be expected to be positive, due to the increase in the quantity purchased (increase in the commercial ACL) and the expected decrease in the ex-vessel price paid. The resulting change in the commercial revenue would be comprised of an expected decrease in the ex-vessel price received but an increase in the quantity sold (increase in the commercial ACL), and the change in the commercial PS would be calculated as 51.7% of the commercial PS, as noted in Section 3.3.1. However, historical landings have been below the commercial ACL, so if black grouper landings did not increase as a result of an increase in the commercial ACL, no economic effect on supply, prices, or CS would be expected. Therefore, the net effects on the commercial revenue and CS are not expected.

Recreational Sector

Estimated changes in economic value to recreational fishermen are approximated by multiplying the expected change in the number of fish harvested by a per fish CS estimate. The most recent proxy for a CS estimate for a Black Grouper Black Grouper Complex species is the estimated value of the CS for a 1 fish change in grouper harvest, derived from keeping a second grouper on an angler trip. A value of \$131 (Carter and Liese 2012; values updated to 2024\$) reflect recreational willingness-to-pay (WTP) for 1 additional grouper harvest. This might overestimate the WTP of a black grouper complex fish for Gulf recreational fishermen as a whole, if Gulf

recreational fishermen are retaining more than one Black Grouper Complex fish per trip, since WTP decreases as additional fish are retained.

The expected change in the number of fish harvested is calculated by dividing the difference between the recreational sector’s ACL (83,109 lb gw) and the average landings for the recreational sector from 2019 to 2023 (7,323 lb gw) by 12.98 lb gw, which is the weighted average weight of a recreationally landed black grouper in the Gulf from the 2020 to 2024 fishing years. This may be expected as an upper bound if the recreational sector fully utilizes its sector ACL. Multiplying the expected change in the number of fish expected to be landed by the recreational sector by the estimated value of the CS provides the expected change in CS for the recreational sector, as seen in Table 4.2.3.1. Given the relatively low average historical landings by the recreational sector, the actual change in the recreational sector’s CS will likely be much lower, although still positive.

Table 4.2.3.1. Expected change in the recreational sector’s CS, relative to Alternative 1. CS values are in 2024\$.

Alternative	Expected Change in Rec Sector Landings, Expressed as Number of Fish	Expected Change in Rec Sector CS
Preferred Alt 2	5,840	\$765,045

The producer surplus (PS) of the for-hire component of the recreational sector, being comprised of charter vessels and headboats, would be impacted by a change in the number of targeted trips. In the long run, factors of production, such as labor and capital, can be used elsewhere in the economy, and so only short-term changes to PS are expected. In the Gulf, headboat trips take a diverse set of anglers on a single vessel, generally advertising a diverse range of species to be caught. Therefore, an assumption that no headboat trips would be added due to a change in the recreational sector’s ACL would be reasonable. However, charter vessel trips that are targeting Black Grouper Complex species may be added by anglers and are the focus of the recreational sector PS analysis. Table 3.3.2.1 shows that an average of 1,200 target trips by charter mode for Other SWG in the Gulf were made from 2020-2024, which accounts for just under 5% of all recreational target trips for Other SWG in the Gulf from 2019-2023. In contrast, an average of 44,034 catch trips by charter mode for Other SWG in the Gulf were made from 2020-2024 (Table 3.3.2.2). This suggests that Other SWG fish, which included the species in the Black Grouper Complex established in Action 1, are incidentally harvested species. Therefore, a change in demand for for-hire trips would not be expected. While it is possible that some trips additions might occur, the effects would likely be minimal.

Net Economic Benefits

As the analysis for the commercial sector is qualitative, the quantitative value for the total expected change in net economic benefits for both the recreational and commercial sectors is equivalent to \$765,045 (the expected change in the recreational sector CS displayed in Table

4.2.3.1) and serves as an upper bound for the value if the recreational sector were to fully utilize its sector ACL.

4.2.4 Effects on the Social Environment

Preferred Alternative 2 would establish SDC, and catch limits for the Black Grouper Complex, as required under the Magnuson Stevens Act. To the extent that these biological parameters help determine if overfishing has occurred, or if the stock or stock complex is overfished, they would help to ensure the continued sustainability of the stock and ensure the maximum yield of the fishery. These parameters would also contribute to more effective management measures employed by the Council and could lead to greater benefits to be shared among users. Without these parameters in place, fishers could harvest fish at levels that could have long-term impacts from stock declines. These social effects would be felt by both commercial fishers (and their suppliers, processors, and dealers), and recreational fishers and communities. Relative to **Alternative 1** (No Action), which is not consistent with the Magnuson-Stevens Act requirements, one would expect to see long-term social benefits from the development of these parameters, as they will allow for the application of BSIA to the management of the fishery. Although black grouper and yellowfin grouper are not currently harvested at a level of effort that could lead to overfishing, the establishment of these parameters can safeguard against future increases in effort that could affect the health of the stock.

Additionally, **Preferred Alternative 2** sets the sector allocations and catch limits for the commercial and recreational sectors. Comparing proposed allocations and catch limits under this alternative, with the historical landings presented earlier in this document (Table 1.1.2), neither sector would be required to reduce their landings in the fishery, as recent historical landings (since 2010, following implementation of the IFQ program) are below the proposed catch limits. Recent historic landings are far below the new ACLs established in **Preferred Alternative 2**. This action would not limit effort at the recent historic level. The new commercial ACL, however, is marginally lower than the average commercial landings reported prior to the IFQ period, which may be inflated from the conflation of black and gag grouper (Chih and Turner 2006). As noted above, the introduction of IFQ program was associated with changes in fishing effort and landings including an average decrease in black grouper and a decrease of the ratio of black grouper landings compared to Other SWG species. There may be further shifts in landing or effort following changes to black grouper management within the IFQ program.

Preferred Alternative 2 would set catch limits higher than historic landings while Action 1, **Preferred Alternative 2** would distribute Black Grouper Complex shares to Other SWG shareholders without accounting for landing history. As black grouper is geographically limited primarily to South Florida and yellowfin grouper is rare in the Gulf, Other SWG shareholders elsewhere in the Gulf who use the share to land scamp or Other DWG species will be given Black Grouper Complex shares. As the complex ACL established in this amendment is well below recent landings, there will likely be a surplus of underutilized Black Grouper Complex quota. This could provide economic benefits for shareholders who could sell their unused allocation and existing harvesters of black grouper who could find quota at a price lower than the Other SWG share. The benefit from this market largely depends on how holders of Black

Grouper Complex shares will utilize them, how allocation-holding fishermen can access these shares, and the level of demand for these shares.

4.2.5 Effects on the Administrative Environment

Alternative 1 (No Action) would not be consistent with the Magnuson-Stevens Act and it is not viable alternative. **Preferred Alternative 2** would require rulemaking to implement. However, rulemakings to codify catch limits are routine and are generally initiated through the Council process as established by the Magnuson-Stevens Act.

4.3 Action 3: Recreational AMs for the Black Grouper Complex

4.3.1 Effects on the Physical Environment

For **Alternative 1**, the recreational season would remain open for the entire fishing year regardless of the magnitude of Black Grouper Complex harvest and would be inconsistent with the requirements of the Magnuson-Stevens Act to establish accountability measures. Both **Preferred Alternative 2** and **Alternative 3** would establish a mechanism to constrain harvest to the recreational ACL (established in Action 2 Alternative 2). Because **Preferred Alternative 2** and **Alternative 3** would establish a trigger for closing recreational harvest of the Black Grouper Complex, there could be a positive effect on the physical environment relative to **Alternative 1** by way of decreased fishing activity and interaction between fishermen and the physical environment. However, this assumes that harvest increases well above recent landings and, if there were a closure, recreational anglers could target other reef fish species using bottom gear making any effects of this action on the physical environment negligible.

4.3.2 Effects on the Biological and Ecological Environment

A system of ACLs and AMs sufficient to prevent overfishing is required under the Magnuson-Stevens Act. **Alternative 1** (No Action) would not specify an AM for the recreational sector and allow the recreational season to remain open for the entire fishing year regardless of the magnitude of Black Grouper Complex harvest. This approach is inconsistent with the requirements of the MSA and National Standard 1 Guidelines and could have a negative effect on the biological environment if unsustainable harvest persists over time. **Preferred Alternative 2** and **Alternative 3** would establish a mechanism to control recreational harvest to prevent successive overages of the recreational ACL or complex ACL (established in Action 2 Alternative 2).

Based on the simulation analysis using recreational Black Grouper Complex landings from 2000-2023 (section 2.3 and Appendix D), the likelihood of exceeding the recreational ACL is low, with simulated results exceeding the recreational ACL in approximately 2% of all the simulated values. The simulation also indicates that the complex ACL would likely never be exceeded, even with an annual proportional standard error (PSE) as high as 90% using a 3-year moving average. So, a post-season AM could be triggered when the recreational ACL is exceeded in the

previous year as outlined in **Preferred Alternative 2** but is unlikely to ever be triggered under **Alternative 3**.

4.3.3 Effects on the Economic Environment

Commercial Sector

As this action relates to AMs for the recreational sector. No economic effects are expected for the commercial sector.

Recreational Sector

Alternative 1 (No Action) would not establish recreational AMs, whereas **Preferred Alternative 2** and **Alternative 3** would establish recreational AMs based on the recreational and complex ACLs being exceeded. As the commercial quota serves as the AM for the commercial sector, if the commercial quota is being fully utilized, then any overage by the recreational sector would lead to the complex ACL being exceeded. If the commercial quota is not being fully utilized, then an overage by the recreational sector may not necessarily exceed the complex ACL. Figures 2.3.1 and 2.3.2 illustrate how unlikely it is that the recreational ACL from Action 2, Preferred Alternative 2 would be exceeded annually using either year-to-year (**Preferred Alternative 2**) or a moving 3-year average approach (**Alternative 3**). If the recreational ACL is unlikely to be exceeded, then it follows that the complex ACL would also be unlikely to be exceeded. The likelihood of triggering the recreational AM is greater under **Preferred Alternative 2** than under **Alternative 3**. Without additional information to know how often the recreational AM may be triggered or the implications of the season duration in the year following an overage, the economic effects to the recreational sector cannot be quantified.

4.3.4 Effects on the Social Environment

Alternative 1 (No Action) would not implement any AM if the recreational and complex ACL is exceeded. Recreational fishers would benefit in the short term in their ability to harvest Black Grouper Complex species without any future closures. However, this is not consistent with the requirements of the Magnuson-Stevens Act and National Standard 1 Guidelines. If recreational and/or stock ACLs are exceeded, fish stocks could decline, which could limit future recreational fishing activity and opportunities. Given the recreational ACL proposed in Action 2, if current recreational catch and effort continue, complex landings would be unlikely to exceed the complex ACL level. Although unlikely, there is a limited possibility that the recreational ACL could be exceeded if fishing effort continues at historic levels (Table 1.1.2 and Appendix D). Although the proposed recreational ACL has been exceeded twice since 2000, there are limits to the accuracy of historic recreational data on black grouper (4.2.4, Chih and Turner 2006, Appendix E).

Should fishing effort increase and the recreational and complex ACL is exceeded, **Preferred Alternative 2** would provide a less restrictive approach compared to **Alternative 3**, with an overage in one year only triggering closer monitoring and tracking (and potential closure) of the

fishery should the complex ACL be reached or projected to be reached in the second fishing year. While **Alternative 3** would necessitate a closure for recreational access if sector and complex ACLs are exceeded, it proposes a three-year average for assessing any overage. This option would provide some flexibility, accounting for short term shifts in fishing behavior and effort in the recreational sector. While both **Preferred Alternative 2** and **Alternative 3** would potentially limit recreational fishing access and opportunities (should the applicable ACLs be reached), these alternatives would be expected to protect the long-term health of the complex for future recreational fishing opportunities.

4.3.5 Effects on the Administrative Environment

Alternative 1 (No Action) would not have any immediate affect the administrative environment since it would not establish any recreational AM. However, this alternative is not consistent with the requirements of the Magnuson-Stevens Act and National Standard 1 Guidelines. There is a potential that this action would have a minor effect on the administrative environment if the recreational sector exceeded its Black Grouper Complex ACL. However, simulation analysis (Appendix D) indicates this outcome is generally under **Preferred Alternative 2** and extremely unlikely under **Alternative 3**, where the complex ACL would have to be exceeded on average over three years before triggering the AM. Some administrative burden is anticipated with respect to outreach as it relates to notifying stakeholders of the changes to recreational landings for black grouper and yellowfin grouper being monitored under their new Black Grouper Complex rather than the previous Other SWG. However, these effects are not expected to be significant.

4.4 Action 4: Establish MSY, OY, and SDC for the Scamp Complex

4.4.1 Effects on the Physical Environment

Alternative 1 (No Action) is not consistent with the requirements of the Magnuson-Stevens Act. Establishing these biological reference points and criteria (**Preferred Alternative 2**) allow for sustainable management of the complex and is not expected to result in measurable effects to the physical environment.

4.4.2 Effects on the Biological and Ecological Environment

Fishing effects on the life history characteristics of reef fish is discussed in section 4.2.2 and are applicable to the alternatives being considered in this action. As discussed in section 2.4, not establishing biological reference points or SDC under **Alternative 1** (No Action) is inconsistent with the Magnuson-Stevens Act. Therefore, **Preferred Alternative 2** would have a positive effect on the biological environment relative to **Alternative 1**.

4.4.3 Effects on the Economic Environment

Alternative 1 (No Action) is inconsistent with the Magnuson-Stevens Act. Economic effects under **Preferred Alternative 2** are not quantifiable because this alternative would not establish any limits on catch. Those limits are established in Action 5. However, in comparison to not establishing the MSY proxy, MFMT, MSST, and OY (**Alternative 1**), **Preferred Alternative 2** is expected to assist in preventing overfishing, which would be expected to result in positive economic effects to both sectors.

4.4.4 Effects on the Social Environment

Preferred Alternative 2 uses biological parameters and catch projections from SEDAR 68 (2022) and Amendment 48 (GMFMC 2021a). These parameters would establish an MSY, MFMT, MSST, and OY designed to sustain fish stocks and ensure continued benefits. These levels, and the resulting OFL and ABC discussed in the next action, would reduce the overall target yield levels for the fishery, which would limit both recreational and commercial fishing opportunities. While these parameters would have a negative social effect in the short-term by limiting current fishing access for a larger range of species, they would provide long-term support to promote the biological sustainability of the fishery in the future. Prior to SEDAR 68 and this amendment, scamp and yellowmouth grouper have had not been assessed or given species-specific parameters. This would provide greater social benefits in the future, avoiding overfishing, protect stocks from being overfished, and contributing to healthier fish stocks for both recreational and commercial fishers. Communities engaged in, and reliant on recreational and commercial fishing would likely benefit from continued fishing opportunities for scamp and yellowmouth grouper. A further discussion of the social effects of a decreased OFL and ABC will be in Action 5, as Action 5 establishes the specific ACL and its division between sectors.

Relative to **Alternative 1** (No Action), **Preferred Alternative 2** aligns with scientific recommendations. While **Preferred Alternative 2** introduces near-term constraints on landings, it is expected to provide long-term social benefits by growing the stock size over time, consistent with fishery management objectives.

4.4.5 Effects on the Administrative Environment

Alternative 1 (No Action) would have no effect on the administrative environment since no SDC or biological reference points would be established for the Scamp Complex. However, this is inconsistent with the requirements of the Magnuson-Stevens Act. **Preferred Alternative 2** would provide a positive effect to the administrative environment relative to **Alternative 1**. Because **Preferred Alternative 2** would implement biologically informed metrics for management of the Scamp Complex, this would minimize the risk that the complex would be depleted, triggering other management action which would result in negative effects on the administrative environment.

4.5 Action 5: Establish Catch Limits and Sector Allocations for the Scamp Complex

4.5.1 Effects on the Physical Environment

Alternative 1 (No Action) would be inconsistent with the requirements of the Magnuson-Stevens Act and the National Standard 1 Guidelines. Descriptions of the types of commercial and recreational fishing gear for SWG species, including those species within the new Scamp Complex are provided in section 4.1.1. This action is not expected to impact the physical environment. However, decreases in catch limits described in **Option 2a, Preferred Option 2b, and Option 2c** in **Alternative 2** may result in diminished fishing effort, which could decrease potential effects. Any effects from this action are not expected to be significant, as this action is not expected to change how the reef fish fishery is prosecuted overall because it is a multi-species fishery targeting many species.

4.5.2 Effects on the Biological and Ecological Environment

Not establishing catch levels, as considered in **Alternative 1** (No Action), would be inconsistent with the Magnuson-Stevens Act. **Preferred Alternative 2** would establish catch levels consistent with BSIA. Fishing effects on the life history characteristics of reef fish are discussed in section 4.2.2 and these effects would be minimized by establishing sustainable harvest levels for the Scamp Complex. Even with increases in commercial and recreational discards, each of the sub-alternatives under **Preferred Alternative 2** is expected to result in positive effects to the biological environment with regard to species in the Other SWG complex because they are expected to result in lower overall mortality to the complex than under current management, reducing harvest to a level that is expected to result in an increased stock size. Therefore, **Preferred Alternative 2** would provide substantial biological benefit to the complex relative to **Alternative 1**. Because the complex would be monitored to the complex ACL, the various

sector allocations considered in **Option 2a, Preferred Option 2b, and Option 2c** in **Alternative 2** would still provide values of sustainable harvest for the complex relative to **Alternative 1**.

4.5.3 Effects on the Economic Environment

Preferred Alternative 2 establishes a complex ACL, commercial ACL, and recreational ACL for the Scamp Complex established in Action 1.1, whereas **Alternative 1** (No Action) would not establish these ACLs. **Preferred Alternative 2, Option 2a, Preferred Option 2b, and Option 2c** establish sector allocations, respectively, as 80.1%/19.9% commercial/recreational, 38.6%/61.4% commercial/recreational, and 29.7%/70.3% commercial/recreational.

Commercial Sector

For the commercial sector, the comparison of effects is based on the resulting commercial ACL from **Alternative 2 Option 2a** (146,000 lb gw), **Preferred Option 2b** (70,000 lb gw), and **Option 2c** (54,000 lb gw) relative to that of the 5-year average (2019-2023) of historical commercial landings (118,997 lb gw) under **Alternative 1**.

To calculate expected changes in commercial CS, own-price flexibility³¹ for the commercial sector for the Gulf Scamp Complex would be required to derive the expected average price change. Keithly and Tabarestani (2018) estimated an uncompensated own-price flexibility for “GOM Other Grouper,” inclusive of Scamp Complex species, of -0.396. If own-price flexibility is unavailable, price is assumed constant with changes in the commercial quota, and if the expected average price change is zero, then multiplying that by the change in expected harvest by the commercial sector under the proposed quota to arrive at the expected change in commercial CS for the Scamp Complex would result in a value of zero. However, for the Scamp Complex, the expected change in commercial CS can be derived using the own-price flexibility for “GOM Other Grouper.” The expected change in the commercial sector’s CS is displayed in Table 4.5.3.1.

Table 4.5.3.1. Expected change in the commercial sector’s consumer surplus, relative to **Alternative 1**. Values are in 2024\$.

Preferred Alternative 2, Option	Expected Change in Landings by Commercial Sector (lb gw)	Expected Average Price Change (\$/lb)	Expected Change in CS (2024\$)
Option 2a	27,003	-\$0.63	\$83,368
Preferred Option 2b	-48,997	\$1.14	-\$107,889
Option 2c	-64,997	\$1.51	-\$131,004

³¹ The own-price flexibility is the percentage change in a product’s price relative to the percentage change of a product’s quantity sold. This shows the responsiveness of a product’s price to the quantity being sold.

To determine the respective expected changes in ex-vessel revenue as a result of the proposed change to the commercial ACLs and its effects on commercial landings, the commercial ACLs from **Preferred Alternative 2 Option 2a**, **Preferred Option 2b**, and **Option 2c** are multiplied by the sum of the expected average price change from Table 4.5.3.1 and the average ex-vessel price per lb gw of \$7.00 for Other SWG (a proxy, as it includes the Scamp Complex species as well as the Black Grouper Complex species). From that value is then subtracted the average ex-vessel price per lb gw of \$7.00 for Other SWG from 2019-2023 (2024\$) multiplied by the average commercial landings from 2019-2023. The commercial PS for vessels that harvested shallow-water grouper in the Gulf is estimated as 51.7% of the ex-vessel value (Section 3.3.1). The expected changes in revenue and in commercial PS are shown in Table 4.5.3.2.

Table 4.5.3.2. Expected change in the commercial sector revenue, relative to Alternative 1. Values are in 2024\$.

Preferred Alternative 2, Option	Expected Change in Comm Revenue	Expected Change in Comm PS
Option 2a	\$97,210	\$50,258
Preferred Option 2b	-\$263,159	-\$136,053
Option 2c	-\$373,326	-\$193,010

The total expected change in net economic benefits for the commercial sector from **Preferred Alternative 2** relative to **Alternative 1** is calculated by adding the expected change in commercial CS from Table 4.5.3.1 to the expected change in commercial PS from Table 4.5.3.2. This value is displayed in Table 4.5.3.3.

Table 4.5.3.3. Total expected change in net economic benefits for the commercial sector relative to Alternative 1. Values are in 2024\$.

Preferred Alternative 2, Option	Total Expected Change in Net Economic Benefits
Option 2a	\$133,626
Preferred Option 2b	-\$243,942
Option 2c	-\$324,014

Recreational Sector

Estimated changes in economic value to recreational fishermen are approximated by multiplying the expected change in the number of fish harvested by a per fish CS estimate. The most recent proxy for a CS estimate for a Scamp Complex species is the estimated value of the CS for a 1 fish change in grouper harvest, derived from keeping a second grouper on an angler trip. A value of \$131 (Carter and Liese 2012; values updated to 2024\$) reflect recreational willingness-to-pay (WTP) for 1 additional grouper harvested. This might overestimate the WTP of a scamp

complex fish for Gulf recreational fishermen as a whole if they are retaining more than one Scamp Complex fish per trip, since WTP decreases as additional fish are retained.

The expected change in the number of fish harvested is calculated by dividing the difference between the recreational sector’s ACL (36,417 lb gw for **Option 2a**, 112,362 lb gw for **Preferred Option 2b**, and 128,585 lb gw for **Option 2c**) and the average landings for the recreational sector from 2019-2023 (329,490 lb gw) by 3.85 lb gw, which is the weighted average weight of a recreationally landed scamp in the Gulf from the 2020 to 2024 fishing years. Multiplying the expected change in the number of fish expected to be landed by the recreational sector by the estimated value of the CS provides the expected change in CS for the recreational sector, as seen in Table 4.2.3.4.

Table 4.5.3.4. Expected change in the recreational sector’s CS, relative to Alternative 1. CS values are in 2024\$.

Preferred Alternative 2, Option	Expected Change in Rec Sector Landings, Expressed as Number of Fish	Expected Change in Rec Sector CS
Option 2a	-76,060	-\$9,963,872
Preferred Option 2b	-56,350	-\$7,381,903
Option 2c	-52,140	-\$6,830,356

The producer surplus (PS) of the for-hire component of the recreational sector, being comprised of charter vessels and headboats, would be impacted by a change in the number of targeted trips. In the long run, factors of production, such as labor and capital, can be used elsewhere in the economy, and so only short-term changes to PS are expected. In the Gulf, headboat trips take a diverse set of anglers on a single vessel, generally advertising a diverse range of species to be caught. Therefore, an assumption that no headboat trips would be added due to a change in the recreational sector’s ACL would be reasonable. Table 3.3.2.1 shows that an average of 1,200 target trips by charter mode for Other SWG in the Gulf were made from 2020-2024, which accounts for just under 5% of all recreational target trips for Other SWG in the Gulf from 2019-2023. In contrast, an average of 44,034 catch trips by charter mode for Other SWG in the Gulf were made from 2020-2024 (Table 3.3.2.2). This suggests that Other SWG fish, which included the species in the scamp complex established in Action 1, are incidentally harvested species. Therefore, a change in demand for for-hire trips would not be expected. While it is possible that some trips cancellations might occur, the effects would likely be minimal.

Net Economic Benefits

The total expected change in net economic benefits for both the recreational and commercial sectors are displayed in Table 4.5.3.5. All options result in a negative total expected change in net economic benefits, driven primarily by the reduction in the recreational ACL.

Table 4.5.3.5. The combined total expected change in net economic benefits for the both the recreational and commercial sectors relative to Alternative 1. Values are in 2024\$.

Preferred Alternative 2, Option	Total Expected Change in Net Economic Benefits
Option 2a	-\$9,830,246
Preferred Option 2b	-\$7,625,846
Option 2c	-\$7,154,369

4.5.4 Effects on the Social Environment

Preferred Alternative 2 establishes catch limits for the newly established Scamp Complex. **Alternative 1** (No Action) would not establish catch limits for the Scamp Complex. This is inconsistent with NS 1 of the Magnuson-Stevens Act and is therefore not a viable option. The catch limit established in **Preferred Alternative 2** is substantially lower than historic landings across both the commercial and recreational sectors and the scale of social effects are dependent upon the sector allocations decided in **Option 2a**, **Preferred Option 2b**, and **Option 2c**.

As discussed in Action 1, this amendment sees a holder of 1% shares of SWG receive 1% shares of Scamp Complex and 1% shares of Black Grouper. The allocation of Black Grouper available to harvest is established in Action 2. In conjunction with Action 2, this amendment sees a total increase in pounds of fish compared to the SWG Framework Action but sees a decrease in pounds of scamp able to be landed. To understand the effects of this Action, it is important to consider it in the context of Action 1 and Action 2. Table 4.5.4.1 demonstrates how much allocation is available for the existing Other SWG share and for the new Black Grouper and Scamp Complex share categories established in this amendment. Table 4.5.4.2 demonstrates how much total allocation of Other SWG species will be available for a holder of 1% shares of Other SWG following the actions taken in this amendment. Figure 4.5.4.1 compares the allocation of fish available to be harvested by a shareholder of 1% SWG from 2025-2027 based on the options in this action.

Table 4.5.4.1. Allocation available in each share category, for 1% of each shares following a dissolution of the Other SWG category into Black Grouper Complex and Scamp Complex categories.

IFQ Share Category	Percent of Shares	ACT/ACL (lbs gw)	
		ACT/ACL (lbs gw)	Allocation
SWG (2014-2025)	1% SWG	526,000	5260
SWG (Framework Action 2026)	1% SWG	245,000	2450
Black Grouper Complex (2.2)	1% BG	227,000	2270
Scamp Complex (5.2a)	1% Scamp	146,000	1460
Scamp Complex (5.2b)	1% Scamp	70,000	700
Scamp Complex (5.2c)	1% Scamp	54,000	540

Table 4.5.4.2. Total allocation of Other SWG species available for a holder of 1% shares of Other SWG following Action 1, Preferred Alternative 2, Action 2, Preferred Alternative 2, and Action 5, Preferred Alternative 2, Option 2a, Preferred Option 2b, and Option 2c, change in total lbs gw of fish able to be landed, flexibility between species.

IFQ Share	Total shares	Scamp Allocation (in lbs gw)	BG Allocation (in lbs gw)	Total Allocation of fish (BG and Scamp) (in lbs gw)	Change (%) in lbs of fish from 2014-2025 ACL	Flexibility Between Species
SWG (2014-2025)	1% SWG	5260	5260	5260	NA	Yes
SWG (2026)	1% SWG	2450	2450	2450	-53%	Yes
Scamp Complex (5.2a)	1% Scamp + 1% BG	1460	2270	3730	-29%	No
Scamp Complex (5.2b)	1% Scamp + 1% BG	700	2270	2970	-44%	No
Scamp Complex (5.2c)	1% Scamp + 1% BG	540	2270	2810	-47%	No

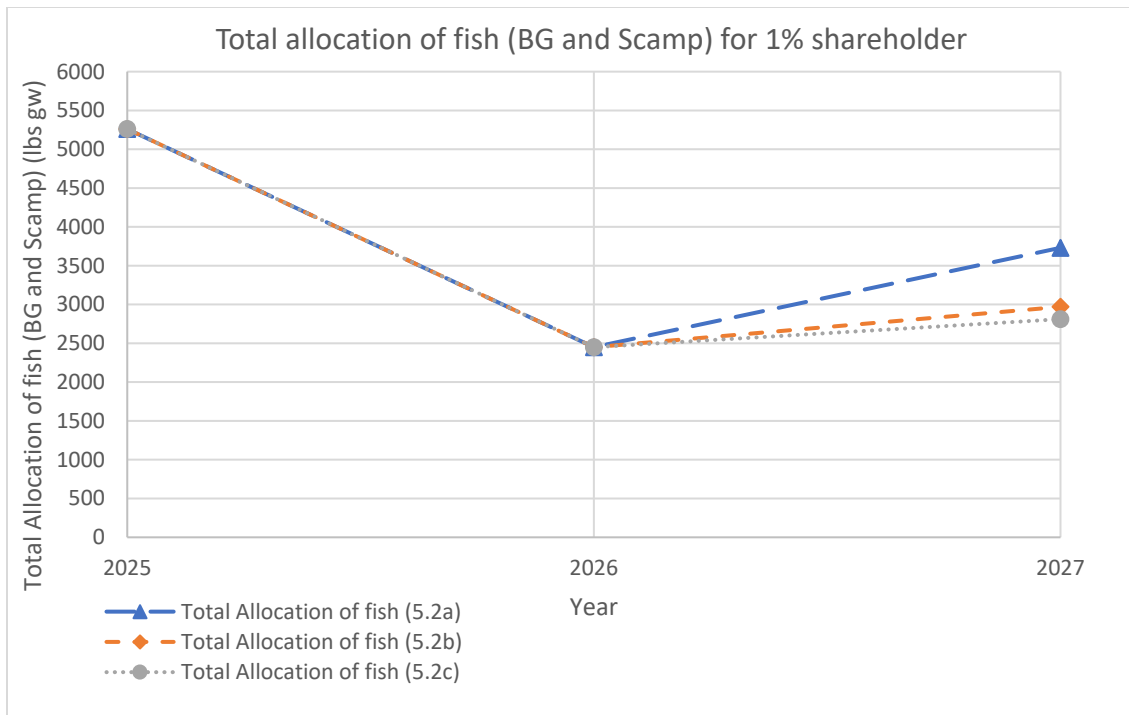


Figure 4.5.4.1. Total allocation of fish (BG and Scamp) for 1% shareholder, change from 2025 ACL, 2026 ACL (following Other SWG Framework Action), and 2027 ACL (following the options in this action).

Commercial fishermen who harvest both Scamp Complex and Black Grouper Complex species or who harvest Black Grouper Complex species and not Scamp Complex species are expected to experience less hardship from a reduction in Scamp Complex allocation than those who harvest only species in the Scamp Complex. Communities in Pinellas County, Florida (Madeira Beach, Redington Shores, Tarpon Springs, Indian Shores) and nearby Manatee County, Florida (Cortez) which are amongst the top ten communities who land both Scamp and Black Grouper (Figure 3.4.1.2 and Figure 3.4.1.3) might experience less disruption. The communities with the top Black Grouper landings and lower levels of Scamp landings (located in Southwest Florida) might benefit by gaining access to Scamp shares which are likely to increase in price while being able to continue to hold onto Black Grouper shares and buy new Black Grouper shares at a lower price. Communities in the Florida panhandle (Panama City, Apalachicola, and Destin), Louisiana (Golden Meadow) and Texas (Galveston) with high landings of Scamp and low landings of Black Grouper will likely benefit the least from this amendment as the allocation of the species they land will be reduced and the new Black Grouper share they will receive will be of a lower value.

The sector allocations introduced in **Preferred Alternative 2** would have varied social effects as they would determine how the Scamp Complex ACL is distributed between the two categories of users. **Option 2a** results in a reduction that would disproportionality affect the recreational sector (87% reduction from 2012-2023 excluding 2020 average landings) while allowing commercial producers to harvest at levels closer to the historic average (a 16% reduction from average landings). This would likely offer the lowest social impact for communities who financially

depend on the ability to land grouper species (Section 3.4). This could result in a loss of income for captain, crew, and communities dependent upon the for-hire industry, as recreational fishermen will only be able to land scamp and yellowmouth grouper for a short period of the year. Private recreational anglers who exclusively target scamp—a reportedly small community but centered around the Flower Garden Banks, accessible to recreational fishermen with the resources to access this area from Louisiana and Texas—would also experience a loss of access and decreased angler satisfaction (Appendix F). As noted in Section 2.5, this would use the allocation established in the Generic ACL/AM Amendment which used recreational data from the Marine Recreational Fisheries Statistics Survey (MRFSS), which is no longer in operation. Contemporary catch limit recommendations rely on analyses using Marine Recreational Information Program (MRIP) Fishing Effort Survey (FES) data. As described in Appendix E, in 2013 MRIP incorporated a new survey design. The increase in recreational landings since 2013 reflects this change in methods.

Preferred Option 2b and **Option 2c** distribute allocations based on landing histories in the two sectors. The options differ in the time series used to calculate average landings and the method of calculating sector-specific allocation. **Preferred Option 2b** calculates landings averages from 2012-2023³², excluding the COVID year, to represent more long-term trends and **Option 2c** uses more recent landings (2021-2023) and accounts for the recent proportional distribution between sectors to represent current patterns. In **Preferred Option 2b** each sector will have to decrease their average landings (historically 173,890 in the commercial sector and 276,790 in the recreational sector) by ~59% to align in accordance with the ~58% reduction in the harvest of scamp and yellowmouth grouper recommended by SEDAR 68. **Option 2c**, by calculating a proportional reduction based on recent trends in landings histories, would lead to a smaller ACL for the commercial sector. Both options would limit the opportunities for commercial and recreational fishing but would be designed to reduce landings for each sector equally based on recent historical landing patterns.

Although **Preferred Alternative 2**, **Preferred Option 2b** and **Option 2c** are based on the best scientific information available, it will result in a sector re-allocation from the status quo. Public comments for amendments that have resulted in sector reallocations favoring the recreational sector due to a change in recreational data collection methods have included expressions of concern from commercial stakeholders about the accuracy of recreational data and accountability of the recreational sector (see Appendix F and Amendment 58B, Appendix D). While it is expected that the commercial sector will be negatively impacted following a reallocation of a portion of its ACL to the recreational sector, it is also expected that the recreational sector will be negatively impacted by shifting from an undefined recreational ACL for Scamp Complex species to one that is less than half of their average landings. This reduction in available catch for the recreational sector will occur while other popular recreational species are experiencing short seasons (e.g., gag grouper, amberjack), and shortly after a shift from an undefined recreational ACL for DWG species to one that is far below average landings (Table 1.1.1; GMFMC 2025a). Compounded, fishermen in the recreational sector could feel their access to harvest a diverse

³² 2012 is the start date for this time series, as it is when the Generic ACL/AM Amendment was implemented for various fish stocks throughout the Gulf (GMFMC 2011a).

range of species limited and could be wary of further government restrictions to the recreational fishery.

In general, lower catch limits would be associated with negative effects in the short term for both sectors as they allow for fewer fish to be landed. These negative effects are expected to be mitigated over the long term as reduced harvest levels allow the stock to rebuild, leading to higher catch limits in the future. A decrease in allocation of Scamp Complex will be experienced as a hardship by commercial harvesters of Scamp Complex species who might find themselves losing income by being unable to land scamp, the grouper species with the second highest ex-vessel value as of 2024 (Table 31; NMFS 2025). Although some negative effects are expected as a result of reduced Scamp allocation, scamp is not a primary targeted species (SEDAR 68) for most fishermen in the Gulf, and it is expected that this amendment alone will not cause substantial economic disruption to communities engaged and reliant on recreational and commercial fishing.

Compounding effects, however, are to be expected following the substantial reduction in harvest for DWG species in Amendment 58B and the elimination of the Other SWG share category and flexibility mechanisms between the shares. By decreasing the allocation for scamp, which are often incidentally caught with DWG species, alongside a recent decrease of the allocation of DWG, the price for both shares and allocation is expected to increase. Commercial fishermen who primarily target DWG species, having already experienced negative social impacts (see GMFMC 2025a, sec. 4.2.4) will have to limit their target effort for deepwater grouper species and possibly need to shift their effort to other fish. Fishermen who primarily target other species in the Grouper-Tilefish IFQ program and catch SWG and DWG species incidentally could find it more difficult to land fish, as the price of allocation and shares will likely increase, and existing flexibility measures will be eliminated.

A decreased ACL across sectors and resultant requirements to discard scamp when incidentally harvested after the sector ACLs have been met will likely have a negative effect on the subjective experience of the grouper fishery. According to available information from Gulf-based seafood vendors, fishing blogs and books, scamp has unique and socially valuable qualities associated with taste. Restricting recreational fishermen and commercial crew from keeping captured scamp for personal consumption could negatively affect their experience of the fishery. Public comment and secondary literature suggest that requirements to discard dead out-of-season fish negatively impacts the experience of the fishery for commercial and recreational fishermen alike (Rossiter and Stead 2003; Villasante, et al. 2016; Appendix D; GMFMC 2025a). Discard mortality rates for scamp are estimated by SEDAR 68 to be 40-75% for the commercial sector and 16-40% for the recreational sector (Table 5; SEDAR 68). Public comment by fishermen in the commercial sector suggests that because scamp is a deepwater species that is incidentally captured along with other species like gag grouper, a substantially reduced commercial ACL is unlikely to help the stock due to the scale of discard mortality (Appendix F). Along with the dissatisfaction of discarding fish that have a low chance of survival, fishermen in both sectors might need to increase effort to harvest other species of fish for personal consumption or sale.

4.5.5 Effects on the Administrative Environment

Alternative 1 is inconsistent with the Magnuson-Stevens Act and would result in administrative burden, especially if it resulted in overfishing or and overfished status for Scamp Complex species. **Preferred Alternative 2, Option 2a, Preferred Option 2b, and Option 2c** would all reduce catch levels to sustainably manage the complex consistent with BSIA. All of the **Preferred Alternative 2** options are expected to have positive effects on the administrative environment. These effects would be beneficial since implementation of harvest levels reduce the likelihood of overfishing the Scamp Complex, which could trigger the need for additional regulatory action. The options under Preferred Alternative 2 are expected to have similar effects on the administrative environment as each would be expected to constrain harvest and avoid overexploitation of recreational AMs.

4.6 Action 6: Establish a Recreational Annual Catch Target (ACT) for the Scamp Complex

4.6.1 Effects on the Physical Environment

The alternatives in this action would have a negligible effect on the physical environment as recreational fishing for the Scamp Complex would still be permissible. Since the ACT is less than the ACL, it is possible that **Preferred Alternative 2** and **Alternative 3** would result in more recreational in-season closures relative to **Alternative 1** if the AM selected in Action 7 requires closure when the ACT is met. However, because of the multi-use nature of the reef fish fishery, it is unlikely any of the alternatives in this action would result in any changes to the physical environment.

4.6.2 Effects on the Biological and Ecological Environment

An ACT may act as an AM that accounts for additional management uncertainty in monitoring a particular species or complex. By monitoring harvest to a recreational ACT rather than a recreational ACL, the probability of exceeding the ACL is reduced, especially when data collection is not timely or there is high uncertainty in the recreational harvest estimates.

Alternative 1 (No Action), **Preferred Alternative 2**, and **Alternative 3** would monitor Scamp Complex harvest to sustainable levels; however, if harvest were to be monitored to an ACT as described in **Preferred Alternative 2**, and **Alternative 3** this would increase the probability that harvest will remain at or below sustainable catch levels. This amendment would establish a new Scamp Complex, so this established management measure creates additional uncertainty.

Additionally, SEDAR 68 indicated a necessary substantial reduction in catch levels.

Recreational data collection surveys often struggle to produce catch estimates for lower catch levels which can be harvested quicker than the temporal scale of the survey design. Therefore, **Preferred Alternative 2** and **Alternative 3** are expected to have a more positive effect on the biological environment relative to **Alternative 1**.

The values for the ACT were generated using the ACL/ACT Control Rule. As explained above, complexes of species that are represented by a singular species (i.e. indicator species) in the ACL/ACT Control Rule are inherently uncertain. This is because there is underlying uncertainty when an indicator species is used as an indirect proxy for another species when considering management measures. **Preferred Alternative 2** would manage scamp and yellowmouth grouper as a single stock, while **Alternative 3** would instead use scamp as the indicator species for the Scamp Complex. SEDAR 68 was an assessment that examined scamp and yellowmouth grouper as a single stock. **Preferred Alternative 2** would retain that combined approach for considering the management of scamp and yellowmouth grouper together. While **Preferred Alternative 2** and **Alternative 3** would have similar biological effects relative to each other,

4.6.3 Effects on the Economic Environment

Commercial Sector

As this action would establish a recreational ACT buffer for the Scamp Complex, no economic effects are expected for the commercial sector.

Recreational Sector

While this action establishes a recreational ACT buffer for the Scamp Complex, it does not establish how the buffer will be used for management purposes. Therefore, no economic effects are expected for the recreational sector.

4.6.4 Effects on the Social Environment

ACTs, when attached to other management measures (discussed in Action 7), help to address management uncertainty in monitoring landings against catch limits, reducing the risk of exceeding sector and complex ACLs. Exceeding sector ACLs could reduce availability of fish for recreational and commercial harvesters, or lead to future closures or other restrictions required to manage fish stocks. **Alternative 1** (No Action), which does not establish a recreational ACT, would not further constrain harvest. In the short term, **Alternative 1** would be expected to result in positive social benefits to recreational fishing communities through an increased opportunity to land Scamp Complex species. In the long term, if recreational sector landings risk exceeding the recreational ACL, negative social effects would be expected for both recreational and commercial sectors. Exceeding the recreational ACL would likely result in decreased stock health and the required implementation of more stringent management measures. Both sectors would experience negative social effects related to reduced opportunities to land Scamp Complex species.

Preferred Alternative 2 and **Alternative 3** would reduce the harvest limit from the recreational ACL by introducing an ACT. **Alternative 3** proposes a larger buffer and would further limit harvest opportunities for the recreational sector while decreasing the likelihood that the sector ACL is exceeded. The social effects of these alternatives are dependent upon the size of the recreational ACL, established in Action 5. If Action 5, **Preferred Alternative 2, Option 2a** is

selected, the recreational sector would receive an ACL substantially lower than recent landings histories; this would result in a higher likelihood that the ACL could be exceeded. With such a small ACL, the establishment of an ACT to serve as a buffer and the resultant reduction in scamp available to harvest is likely to be experienced as an additional hardship to recreational fishers. Although Action 5, **Preferred Alternative 2**, **Preferred Option 2b** and **Option 2c** would also result in a reduction of scamp available to harvest, these would see a reallocation in favor of the recreational sector and would allow for a much longer season than **Option 2a**. These benefits should mitigate some of the negative social effects related to additional loss of access to harvest as a result of a buffer. An establishment of ACTs could help to ensure that ACLs are not exceeded and ensure that Scamp Complex stocks remain at sustainable levels, which would allow for long-term recreational engagement in this fishery.

4.6.5 Effects on the Administrative Environment

Alternative 1 (No Action) would not establish a recreational ACT. Given the uncertainty surrounding landings, especially with the vastly reduced catch limits, this is more like to result in overharvest of the Scamp Complex than the action alternatives. This may result in increased administrative burden, especially if this results in overfishing or in an overfished status for the complex. If monitoring recreational harvest to an ACT, establishing an ACT would likely result in a reduced chance in overfishing and a slightly reduced chance of the stock becoming overfished, which would result in slight positive effects to the administrative environment. Therefore, compared to **Alternative 1**, **Preferred Alternative 2** and **Alternative 3** are expected to have slight positive effects to the administrative environment because they result in harvest levels that reduce the likelihood of overexploiting the Scamp Complex, which could trigger the need for additional regulatory action, if an ACT is used for recreational monitoring. The effects of **Preferred Alternative 2** and **Alternative 3** are expected to be similar to each other. Alternative 3 is slightly more likely to result in a recreational closure, although both action alternatives are expected to result in recreational closures. In addition, although Alternative 3 may be slightly less likely to result in overfishing/overfished, both alternatives are expected to promote sustainable management of the Scamp complex, and thus the differences between the two action alternatives relative to administrative burden are expected to be negligible. Additionally, closures are standard practice in fishery management and are expected as a standard management practice; therefore, no substantial administrative burden is expected should an ACT be established and used for recreational monitoring (as considered in Action 7.1).

4.7 Action 7: Establish a Recreational Fixed Closed Season and Recreational Sector AM and Establish a Payback Provision for the Scamp Complex

4.7.1 Action 7.1: Establish a Recreational Fixed Closed Season and Recreational Sector AMs for the Scamp Complex

4.7.1.1 Effects on the Physical Environment

Alternative 1 would not establish a fixed closed season for the recreational sector or any other AM to constrain recreational harvest to the recreational ACL. Therefore, this alternative it is not consistent with the Magnuson-Stevens Act and National Standard 1 Guidelines. Establishing a recreational fishing season and AM that requires a closure when the recreational ACT is projected to be met under **Alternative 2**, and **Preferred Alternative 3** are expected to result in negligible effects on the physical environment because they are unlikely to change the fishing effort or manner of multi-species fishing for the reef fish fishery as a whole. During a closure fishing effort may shift to or from other species and away from or towards the Scamp Complex.

4.7.1.2 Effects on the Biological and Ecological Environment

Fishing effects on the life history characteristics of reef fish is discussed in section 4.2.2. Implementing a recreational fixed closed season would be expected to reduce recreational harvest and overall mortality of the Scamp Complex.

Alternative 1 (No Action) would not set a fixed closed season for the Scamp Complex or other AMs for the recreational sector and may allow for recreational harvest to exceed the recreational ACL. ABC and OFL. Because **Alternative 1** would not establish a recreational AM and may allow harvest to exceed the recreational and complex ACLs, it is not consistent with the Magnuson-Stevens Act and National Standard 1 Guidelines.

Alternative 2 would set a fixed closed season from January 1 from May 31, and then a second closed season that is based on when the ACT in Action 6 is projected to be met. This means that the season would open on June 1 and close for the remainder of the year based on the ACT chosen in Action 6. **Preferred Alternative 3** would operate the same way but would set a fixed closed season from January 1 from June 30.

Both **Alternative 2** and **Preferred Alternative 3** are expected to have positive impacts on the biological environment because they would implement sustainable fishing practices and harvest levels that are expected to result in an increased stock size for the Scamp Complex. Since the alternatives in this action are expected to result in the same recreational harvest, the impacts based on targeted harvest are expected to be the same. The recreational season chosen in this action may have undetermined effects on bycatch. Both of the action alternatives are expected to increase discards of Scamp Complex species because any of those species caught during the closed season would require discarding. Because both **Alternative 2** and **Preferred Alternative**

3 would allow some overlap with the prime red snapper recreational season (especially the for-hire season), and also overlap with the gag recreational season and the first part of the greater amberjack recreational season, it is likely that these alternatives would reduce discards relative to **Alternative 1**. Regardless of any predicted increased discards under the action alternatives, the effects of **Alternative 2** and **Preferred Alternative 3** are expected to be positive, since they would both help constrain harvest levels to the recreational ACT and ACL.

The effects on the biological environment of the alternatives in Action 7.1 also depend on NMFS ability to project recreational landings and close the sector when landings reach the ACT.

Alternative 2 and **Preferred Alternative 3** are expected to have significant impacts on any other component of the biological environment, because they are unlikely to change the fishing effort or manner of fishing for the reef fish fishery as a whole. For the same reasons as stated in Section 4.2.2, no additional impacts to ESA-listed species are anticipated as a result of this action.

4.7.1.3 Effects on the Economic Environment

Commercial Sector

As this action would establish a fixed closed recreational season and recreational sector AMs for the scamp complex, no economic effects are expected for the commercial sector.

Recreational Sector

Alternative 1 (No Action) would not establish a fixed closed recreational season and not establish recreational sector AMs for the scamp complex. **Alternative 2** and **Preferred Alternative 3** would establish a recreational fixed closed season for the Scamp Complex and would implement a season closure when NMFS projects the recreational ACT, as established in Action 6, is met. **Alternative 2** and **Preferred Alternative 3** therefore serve the function of a constraint of the recreational sector's ACT, and the full recreational sector's allowable harvest is expected to be achieved despite a shorter season. The economic effects detailed for the recreational sector in this section with **Alternative 2** and **Preferred Alternative 3**, therefore, only occur if the recreational sector exceeds its sector ACL.

Estimated changes in economic value to recreational fishermen are approximated by multiplying the expected change in the number of fish harvested by a per fish CS estimate. The most recent proxy for a CS estimate for a Scamp Complex species is the estimated value of the CS for a 1 fish change in grouper harvest, derived from keeping a second grouper on an angler trip. A value of \$131 (Carter and Liese 2012; values updated to 2024\$) reflect recreational WTP for 1 additional grouper harvest. This might overestimate the WTP of a Scamp Complex fish for Gulf recreational fishermen as a whole, if Gulf recreational fishermen are retaining more than one Scamp Complex fish per trip, since WTP decreases as additional fish are retained.

The expected change in the number of fish harvested is calculated by dividing the difference between the recreational sector's ACL and ACT (values available in Table 2.6.1) by 3.85 lb gw, which is the weighted average weight of a recreationally landed scamp in the Gulf from the 2020

to 2024 fishing years. Multiplying the expected change in the number of fish expected to be landed by the recreational sector by the estimated value of the CS provides the expected change in CS for the recreational sector. For **Preferred Alternative 2** with a 14% recreational ACL/ACT buffer and for **Alternative 3** with a 18% recreational ACL/ACT buffer, these values are seen in Table 4.6.3.1.

Table 4.6.3.1. Expected change in the recreational sector’s CS, relative to Alternative 1. CS values are in 2024\$.

	Action 6, Preferred Alt 2 (14% rec ACL/ACT buffer)		Action 6, Alt 3 (18% rec ACL/ACT buffer)	
Action 5 Preferred Alternative 2, Option	Expected Change in Rec Sector Landings, Expressed as Number of Fish	Expected Change in Rec Sector CS	Expected Change in Rec Sector Landings, Expressed as Number of Fish	Expected Change in Rec Sector CS
Option 2a	-1,323	-\$173,321	-1,701	-\$222,856
Preferred Option 2b	-4,083	-\$534,821	-5,249	-\$687,607
Option 2c	-4,672	-\$612,030	-6,007	-\$786,881

The producer surplus (PS) of the for-hire component of the recreational sector, being comprised of charter vessels and headboats, would be impacted by a change in the number of targeted trips. In the long run, factors of production, such as labor and capital, can be used elsewhere in the economy, and so only short-term changes to PS are expected. In the Gulf, headboat trips take a diverse set of anglers on a single vessel, generally advertising a diverse range of species to be caught. Therefore, an assumption that no headboat trips would be added due to a change in the recreational sector’s ACL would be reasonable. Table 3.3.2.1 shows that an average of 1,200 target trips by charter mode for Other SWG in the Gulf were made from 2020-2024, which accounts for just under 5% of all recreational target trips for Other SWG in the Gulf from 2019-2023. In contrast, an average of 44,034 catch trips by charter mode for Other SWG in the Gulf were made from 2020-2024 (Table 3.3.2.2). This suggests that Other SWG fish, which included the species in the Scamp Complex established in Action 1, are incidentally harvested species. Therefore, a change in demand for for-hire trips would not be expected. While it is possible that some trips cancellations might occur, the effects would likely be minimal.

Net Economic Benefits

As the only expected economic effects are to the recreational sector, the expected change in the recreational sector’s CS, as seen in Table 4.6.3.1, represents the total expected change in net economic benefits for both the recreational and commercial sectors. However, these negative

values for the total expected change in net economic benefits would be expected under **Alternative 2** and **Preferred Alternative 3** only if the recreational sector exceeds its sector ACL.

4.7.1.4 Effects on the Social Environment

Alternative 1 (No Action) does not propose any fixed closed season or AM for the recreational sector. However, given the harvest reductions for the Scamp Complex proposed in previous actions, coupled with current recreational fishing demand, keeping the fishery open and allowing recreational harvest throughout the entire year will likely lead to exceeding the recreational ACT and ACL and possibly the complex ACL. This would have future negative social effects, by threatening the stock health, which could require future management efforts to limit fishing access.

Alternative 2 and **Preferred Alternative 3** introduce a recreational fixed closed season and an AM that would close the fishing season when NMFS projects that the complex ACT has been met. For **Alternative 2** and **Preferred Alternative 3**, the opening dates for the fishing season would be June 1 and July 1, respectively. Both of these alternatives would affect recreational fishers by limiting their ability to land scamp and yellowmouth grouper until the opening date and closing the opportunity to harvest upon reaching the ACT. Such measures would help constrain annual harvest to the ACT, which would result in long-term social benefits to recreational fishers through continued access to the fishery and prevent overfishing. Additionally, both alternatives seek to reduce the social disruption and impact of the closures; they are designed to facilitate access for as many days as possible during summer months, when recreational fishing effort is at its peak.

The social effects of **Alternative 2** and **Preferred Alternative 3** compared to **Alternative 1** (No Action) would depend on when recreational effort and catch is the highest for the Scamp Complex. As presented in section 3.3.2, the number of recreational target trips scamp and yellowmouth grouper is relatively small when compared with catch trips. This suggests that these species are not exclusively targeted to a great extent by recreational anglers or for-hire vessels. Recreational effort and catch for Other SWG species are highest in the summer months when recreational fishing effort in general is also the highest. Although scamp might not be exclusively targeted to a great extent, its capture is socially valued. As a rare-event species for many recreational fishermen in much of the Gulf, a requirement to discard out-of-season scamp would be expected to decrease angler satisfaction. **Alternative 2** and **Preferred Alternative 3** are designed to coincide with the bulk of recreational effort and overlap with popular recreational fishing seasons.

As mentioned earlier in a discussion of the effects on the biological and ecological environment (4.7.1.2), both **Alternative 2** and **Preferred Alternative 3** would allow partial overlap with federal recreational seasons for red snapper in the summer and gag grouper and amberjack in late summer/early fall. This assumes in Action 5, **Preferred Alternative 2**, **Preferred Option 2b** or **Option 2c**, is taken, as the recreational ACL established by **Option 2a** is too small to provide any overlap between seasons. Although **Alternative 1** (No Action) would provide the most overlap between seasons, it is not a viable alternative as it would allow the recreational sector to

exceed their ACL/ACT. **Preferred Alternative 3** would see the greatest overlap with these seasons, as it is expected that the ACT for Scamp would be met in September or October. If **Alternative 2** is taken, the ACT is expected to be met in August or September (Table 2.7.1.1, Table 2.7.1.2). **Alternative 2** would result in a shorter season with less overlap with other species; however, it would more closely align with the months that see the highest landings of Scamp. From 2022-2024 recreational landings of the Gulf Scamp Complex have been highest, with variability, on average from May to August (Table C1; Appendix C). **Preferred Alternative 3** begins in July, skipping the month of June to prevent harvest in the month with the highest landings and prevent an overlap with high recreational fishing effort during the start of the red snapper season. By skipping over the high-effort month of June, **Preferred Alternative 3** would result in a longer fishing season for Scamp (71-110 days) compared to **Alternative 2** (66-105 days) (Table 2.7.1.1, Table 2.7.1.2). **Preferred Alternative 3** could see decreased angler satisfaction during June, the start of the federal for-hire red snapper season due to regulatory discarding of scamp. Recreational fishers have noted that the overlap between seasons of focal species can maximize angler satisfaction but have also suggested that the availability of harvest opportunities throughout the year can contribute to angler satisfaction (Recreational Initiative Working Group). **Alternative 1** (No Action) could offer some angler satisfaction by allowing harvest opportunities throughout the year.

Overall, **Alternative 2** and **Preferred Alternative 3** offer harvest opportunities during peak times and are anticipated to offer similar social benefits for Gulf fishing communities. However, **Preferred Alternative 3** could be the most beneficial for recreational participants because of the longer season under this alternative and its potential to overlap with the gag grouper season, a species that scamp is often caught alongside. Social effects for communities engaged in the recreational harvest of Scamp (Section 3.4), such as the benefits of having access during periods of high effort or disadvantages such as the closure and lack of access during other parts of the year would vary depending on when participation in the fishery is the highest in that community. Constraining recreational fishing through a fixed closed season for Scamp would be expected to contribute to the sustainability of harvest and the health of the Scamp complex and provide for long-term social benefits.

4.7.1.5 Effects on the Administrative Environment

This action would have minor effects on the administrative environment. Some administrative burden is anticipated with respect to outreach as it relates to notifying stakeholders of the changes to the recreational fishing season. These effects are not expected to be significant.

4.7.2 Action 7.2: Establish a Recreational Payback Provision for the Scamp Complex

4.7.2.1 Effects on the Physical Environment

Establishment of a payback provision for exceeding a catch limit would reduce the catch limit the following year but would be expected to result in negligible effects on the physical environment, as no change is expected to current recreational fishing practices used in the multi-

species reef fish fishery. In addition, because the Scamp Complex is not under a rebuilding plan, and measures contained in this amendment are expected to improve the complex stock, measures contained in this section are not expected to impact fishing effort or harvest. Effects from **Preferred Alternative 1** (No Action) and **Alternative 2** are expected to be negligible, as they are unlikely to change the fishing effort or manner of fishing for the reef fish fishery as a whole.

4.7.2.2 Effects on the Biological and Ecological Environment

Fishing effects on the life history characteristics of reef fish are discussed in Section 4.2.2. Implementing a recreational payback would be expected to reduce recreational harvest and overall mortality of the Scamp Complex for the year following the overage. But a payback would result in the same motility over the two-year period.

Preferred Alternative 1 (No Action) would not establish a recreational payback provision. **Alternative 2** states if recreational Scamp Complex landings exceed the complex recreational ACL in a fishing year and the stock complex is overfished, NMFS would reduce the recreational ACL and ACT for the following fishing year by the amount of the ACL overage in the prior fishing year, unless BSIA determines that a greater, lesser, or no overage adjustment is necessary. If recreational harvest substantially exceeds new recreational catch levels, a payback provision, as outlined in **Alternative 2**, would be biologically beneficial to the Scamp Complex by reducing fishing mortality the following year. However, paybacks could result in small recreational catch levels that shorten fishing seasons to two months or less (as is the case for greater amberjack and gag grouper). Short fishing seasons are more difficult for data collection and could increase discards during a prolonged closed season. This would not occur under **Preferred Alternative 1**. If an ACT is established in Action 6 and a fixed recreational closed season is established in Action 7.1, it is also possible these added management measures may be adequate to sufficiently manage the Scamp Complex to the recreational ACL established in Action 5. In Action 7.1, fixed closed season alternatives have been selected so that seasonal overlap across the Scamp Complex and other popular recreational reef fish species that occur in similar habitats (e.g., gag grouper, red snapper, and greater amberjack) in an effort to mitigate seasonal discard mortality while also constraining harvest to appropriate catch levels. Therefore, it is difficult to determine with certainty if the effects on the biological environment of **Preferred Alternative 1** would greatly differ from those in **Alternative 2**.

4.7.2.3 Effects of the Economic Environment

Commercial Sector

As this action would establish a recreational payback provision for the scamp complex, no economic effects are expected for the commercial sector.

Recreational Sector

Preferred Alternative 1 (No Action) would not establish a recreational payback provision for the Scamp Complex, while **Alternative 2** would establish one, such that the recreational ACL and ACT would be reduced by the amount of the ACL overage in the prior fishing year, if the

recreational Scamp Complex landings exceed the recreational ACL and the complex is overfished, unless BSIA determines an adjustment is necessary. **Alternative 2** may be expected to have negative economic effects on the recreational sector should a recreational payback be required; however, if a recreational payback is not required, then no economic effects to the recreational sector would be expected.

4.7.2.4 Effects of the Social Environment

Preferred Alternative 1 (No Action) does not establish a recreational payback provision for the Scamp Complex. A payback provision, also referred to as an overage adjustment, is a type of accountability measure (AM); if the ACL is exceeded, the following year's ACL would be reduced. **Alternative 2** would establish a payback provision for the recreational sector. Should a quota overage occur, and the following year's ACL be reduced, some beneficial effects would be expected for the stock which would be expected to translate into indirect, long-term social benefits. If a quota overage is large, negative short-term social effects could result from the overage adjustment and would be relative to the amount of quota that is subtracted.

There are management challenges associated with payback provisions when they result in short seasons. There are data delays, particularly in the recreational sector, where MRIP-FES data collection occurs in two-month waves. The Scamp season, following the recreational ACL established in Action 5 **Preferred Alternative 2, Preferred Option 2b** or **Option 2c** and Action 6 **Preferred Alternative 2** or **Alternative 3** is projected to last 66-99 days. Already a short season, if continuous years of payback provision occur, this will result in increasing difficulty in measuring when the ACL has been met, and thus, increase the possibility of overages. This could result in negative social effects such as decreased angler satisfaction as a result of increasingly shorter seasons. As shorter seasons are more difficult to manage and monitor, increased overage adjustments could result in a higher likelihood of overages, as had occurred in the past with other stocks like gag grouper, which could result in criticisms of government ability to monitor the recreational sector in a reliable and timely manner. Paired with a major reduction of the scamp quota and a re-allocation to the recreational sector, repeat recreational overages would be expected to be experienced by commercial producers as unfair. However, if recreational overages occur without an overage adjustment, this could also lead to criticisms about recreational accountability. It is possible that a reduced stock ACL in Action 5, the establishment of a recreational ACT in Action 6, and the establishment of a recreational fixed closed season in Action 7.1 are sufficient management measures. Establishing a recreational payback provision might eliminate some of the social benefits provided by a fixed closed season in Action 7.1, as consistent overage adjustments could see reduced overlap with the gag grouper and amberjack seasons, the intended social benefit of Action 7.1, **Preferred Alternative 3**.

4.7.2.5 Effects on the Administrative Environment

Preferred Alternative 1 (No Action) would not affect the administrative environment since it would not establish a payback provision. **Alternative 2** would have an effect on the administrative environment relative to **Preferred Alternative 1** since a payback would be implemented in a year following an overage of the Scamp Complex recreational ACL, provided

scamp was under a rebuilding plan. NMFS would be responsible for calculating the overage and then reduce the recreational catch levels by the amount of the overage in the following fishing season. Therefore, **Alternative 2** would have increased administrative burden relative to **Preferred Alternative 1**. However, **Alternative 2** could reduce the likelihood of overexploiting the Scamp Complex, which could trigger the need for additional regulatory action.

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GC = Gulf Council; NOAA GC = National Oceanic and Atmospheric Administration General Counsel; SEFSC = Southeast Fisheries Science Center; SERO = Southeast Regional Office of the National Marine Fisheries Service

APPENDIX A. CONSIDERED BUT REJECTED

Action: IFQ Flexibility Measures

Alternative 1: No Action – Do not create flexibility measures for scamp, warsaw grouper, or speckled hind. These species could not be landed under an alternative allocation category. The Scamp Complex quota would be equal to the complex ACL established in Action 6.

Alternative 2: Create a flexibility measure for warsaw grouper and speckled hind that accounts for the new share categories in Alternative 2 of Action 1. Create a flexibility measure that allows warsaw grouper and speckled hind, designated as DWG share category species, to be landed under Scamp Complex allocation once all DWG allocation in an account has been harvested. The Scamp Complex quota would be 4% below the Scamp Complex ACL established in Action 6.

Action: Distribution of IFQ Program Shares to Newly Established Scamp and Black Grouper Complex Share Categories

Alternative 1: No Action. Proportionally distribute Scamp Complex and Black Grouper Complex share categories based on existing Other SWG share percentages to the Scamp Complex and the Black Grouper Complex.

Alternative 2. Proportionally distribute Scamp Complex and Black Grouper Complex share categories to IFQ participants based on participant’s individual landings histories of each IFQ for each sub-complex within a specified reference period:

Option 2a: Use IFQ participants landings history from 2011 – 2024

Option 2b: Use IFQ participants landings history from 2016 – 2024

Option 2c: Use IFQ participants landings history from 2020 – 2024

Alternative 3. Proportionally distribute Scamp Complex and Black Grouper Complex share categories to IFQ participants, with 50% based on existing Other SWG share percentages and 50% based on landings histories, by species, for each IFQ participant within a specified reference period.

Option 3a: Use IFQ participants landings history from 2011 – 2024

Option 3b: Use IFQ participants landings history from 2016 – 2024

Option 3c: Use IFQ participants landings history from 2020 – 2024

Action 3: Recreational Accountability Measures for the Black Grouper Complex

Alternative: An in-season recreational fishing closure would be implemented for the Black Grouper Complex when NMFS projects the recreational ACL (established in Action 2) is met.

APPENDIX B. GULF COUNCIL ACL/ACT BUFFER CALCULATION SPREADSHEETS

As of 7/1/2025		Note: Scamp and yellowmouth considered a single stock		Gulf SWG
ACL/ACT Buffer Spreadsheet		version 4.1 - April 2011		Sector: Rec
sum of points	3			Years: 2019, 2021-2023
max points	5.0	Buffer between ACL and ACT (or ABC and ACL)		Unweighted 12
Min. Buffer	0	min. buffer	User adjustable	Weighted 14
Max Unw. Buff	19	max unwt. Buff		
Max Wtd Buff	25	max wtd. buffer	User adjustable	
<hr/>				
Component	Element score	Element	Selection	Element result
Stock assemblage		0 This ACL/ACT is for a single stock.	x	0
		1 This ACL/ACT is for a stock assemblage, or an indicator species for a stock assemblage		
Ability to Constrain Catch		0 Catch limit has been exceeded 0 or 1 times in last 4 years	x	0
		1 Catch limit has been exceeded 2 or more times in last 4 years		
		For the year with max. overage, add 0.5 pts. For every 10 percentage points (rounded up) above ACL	0.0	
		Not applicable (there is no catch limit)		
Apply this component to recreational fisheries, not commercial or IFQ fisheries				
Precision of Landings Data Recreational		0 Method of absolute counting		2
		1 MRIP proportional standard error (PSE) <= 20		
		2 MRIP proportional standard error (PSE) > 20	x	
		Not applicable (will not be included in buffer calculation)		
Apply this component to commercial fisheries or any fishery under an IFQ program				
Precision of Landings Data Commercial		0 Landings from IFQ program		not applicable
		1 Landings based on dealer reporting		
		2 Landings based on other		
		Not applicable (will not be included in buffer calculation)	x	
Timeliness		0 In-season accountability measures used or fishery is under an IFQ		1
		1 In-season accountability measures not used	x	
			Sum	3
Weighting factor				
	Element weight	Element	Selection	Weighting
Overfished status		0 1. Stock biomass is at or above B _{OY} (or proxy).		0.2
		0.1 2. Stock biomass is below B _{OY} (or proxy) but at or above B _{MSY} (or proxy).		
		0.2 3. Stock biomass is below B _{MSY} (or proxy) but at or above minimum stock size threshold (MSST).	x	
		0.3 4. Stock is overfished, below MSST.		
		0.3 5. Status criterion is unknown.		

Figure B1: Calculating the ACL/ACT buffer considering scamp and yellowmouth grouper as a single stock. This results in a 14% buffer between the ACL and ACT for the Scamp Complex (Action 6 Alternative 2).

As of 10/16/2024		Note: Scamp used as indicator for PSE determination and SDC		Gulf SWG
ACL/ACT Buffer Spreadsheet		version 4.1 - April 2011		Sector: Rec
sum of points	4			Years: 2019, 2021-2023
max points	5.0		Buffer between ACL and ACT (or ABC and ACL)	Unweighted 15
Min. Buffer	0 min. buffer	User adjustable		Weighted 18
Max Unw. Buff	19 max unwt. Buff			
Max Wtd Buff	25 max wtd. buffer	User adjustable		
Component	Element score	Element	Selection	Element result
Stock assemblage	0	This ACL/ACT is for a single stock.		1
	1	This ACL/ACT is for a stock assemblage, or an indicator species for a stock assemblage	x	
Ability to Constrain Catch	0	Catch limit has been exceeded 0 or 1 times in last 4 years	x	0
	1	Catch limit has been exceeded 2 or more times in last 4 years		
		For the year with max. overage, add 0.5 pts. For every 10 percentage points (rounded up) above ACL Not applicable (there is no catch limit)	0.0	
		Apply this component to recreational fisheries, not commercial or IFQ fisheries		
Precision of Landings Data Recreational	0	Method of absolute counting		2
	1	MRIP proportional standard error (PSE) <= 20		
	2	MRIP proportional standard error (PSE) > 20	x	
		Not applicable (will not be included in buffer calculation)		
		Apply this component to commercial fisheries or any fishery under an IFQ program		
Precision of Landings Data Commercial	0	Landings from IFQ program		not applicable
	1	Landings based on dealer reporting		
	2	Landings based on other		
		Not applicable (will not be included in buffer calculation)	x	
Timeliness	0	In-season accountability measures used or fishery is under an IFQ		1
	1	In-season accountability measures not used	x	
			Sum	4
Weighting factor				
	Element weight	Element	Selection	Weighting
Overfished status	0	1. Stock biomass is at or above B_{OY} (or proxy).		0.2
	0.1	2. Stock biomass is below B_{OY} (or proxy) but at or above B_{MSY} (or proxy).		
	0.2	3. Stock biomass is below B_{MSY} (or proxy) but at or above minimum stock size threshold (MSST).	x	
	0.3	4. Stock is overfished, below MSST.		
	0.3	5. Status criterion is unknown.		

Figure B2: Calculating the ACL/ACT buffer considering scamp as an indicator species. This results in a 18% buffer between the ACL and ACT for the Scamp Complex (Action 6 Alternative 3).

APPENDIX C. RECREATIONAL SEASON ANALYSES FOR THE SCAMP COMPLEX IN THE GULF OF AMERICA

Southeast Regional Office
LAPP/DM Branch
July 2025

The Gulf of America¹³³ (Gulf) shallow water grouper (SWG) complex consists of black grouper, scamp, yellowfin grouper and yellowmouth grouper. These species are currently managed as a stock complex in federal waters under the Fishery Management Plan for the Reef Fish Resources of the Gulf (Reef Fish FMP). In 2022, a stock assessment of scamp and yellowmouth grouper was completed (SEDAR 68 2022), which assessed both species together, and passed a peer-review by the Gulf Council’s (Council) Scientific and Statistical Committee (SSC). The SSC recommended updated status determination criteria (SDC) and catch advice for these two species. To act on these recommendations, the Council initiated work on Amendment 58A to the Reef Fish FMP that considers composition changes to the Other SWG complex, changes to catch limits, modification of the commercial Individual Fishing Quota (IFQ) program, and other management measures. This analysis provides the average recreational landings of Gulf scamp and yellowmouth grouper (Scamp Complex) and recreational season closures based on all management options being considered.

Recreational landings data

Gulf recreational landings for the Scamp Complex were obtained from the Southeast Fisheries Science Center (SEFSC) recreational ACL files (accessed May 2025; Table C1). The SEFSC recreational landings dataset includes landings from the Texas Parks and Wildlife recreational creel survey (TPWD), Louisiana Department of Wildlife and Fisheries creel survey (LA Creel), Southeast Region Headboat Survey (SRHS), and Marine Recreational Information Program (MRIP) Fishing Effort Survey (FES; Florida, Alabama and Mississippi). The MRIP FES file contains estimates from MRIP’s Access Point Angler Intercept Survey (APAIS), MRIP FES (private angler effort estimates), and For-Hire Telephone Survey (FHS; for-hire effort estimates). For 2020 and 2021, imputed MRIP FES catch estimates are used to account for disruptions in the dockside sampling due to COVID. Monthly landings were estimated for MRIP FES, TPWD and LA Creel by assuming equal daily catch rates for months within a wave and then combined with SRHS, which are provided monthly. Predicted future landings for the recreational sector were estimated by averaging monthly landings in 2022-2024. The average monthly landings were then divided by the number of days in each month to provide a daily catch rate for each sector. Average recreational landings of the Scamp Complex are calculated to project future landing rates and are provided to compare against each of the proposed annual catch targets (ACTs; Table C2). The recreational sector will be closed if the ACT is met or is projected to be met.

³³ The Gulf of Mexico was renamed the Gulf of America pursuant to Executive Order 14172, and Secretary of the Interior Order No. 3423. All geographical references to the Gulf of America or “the Gulf” in this Framework Action refer to the same body of water known as the Gulf of Mexico in the regulations at 50 CFR part 622.

Predicted recreational closure dates are provided in Table C2 based on cumulatively summed projected recreational landings of scamp and yellowmouth grouper species.

Table C1. Monthly recreational landings (lb gw) of Gulf Scamp Complex from 2022-2024 along with projected future landings estimated using averaged landings from 2023-2024 (2-year average) and 2022-2024 (3-year average).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total Landings
2022	497	236	33,375	32,896	61,806	60,475	61,124	61,312	6,679	6,656	457	509	326,023
2023	64	50	773	1,150	39,672	39,076	26,502	26,305	35,680	36,903	2,542	2,504	211,221
2024	1,916	1,737	9,974	10,079	24,006	24,361	40,798	40,479	18,765	18,686	4,504	4,828	200,134
2yr Avg Projected Landings	990	893	5,374	5,615	31,839	31,718	33,650	33,392	27,223	27,795	3,523	3,666	205,678
3yr Avg Projected Landings	826	674	14,707	14,708	41,828	41,304	42,808	42,699	20,375	20,748	2,501	2,614	245,793

Source: SEFSC MRIP FES recreational ACL database May, 2025.

Notes: MRIP FES landings include Scamp Complex landings (scamp, yellowmouth grouper; TPWD, SRHS, LA Creel, MRIP FES).

Table C2. Projected Gulf Scamp Complex closure dates expected for the recreational sector with each proposed 2026 Annual Catch Limit (ACL) alternative using a 2-year average 2023-2024. Source: SEFSC MRIP FES Recreational ACL Dataset (May 2025).

Fishing Season Start Date: January 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6 Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	May 18
Option B	112,362	96,631	Jul 19
Option C	128,649	110,583	Aug 1
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 7, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	May 17
Option B	112,362	92,137	Jul 15
Option C	128,649	105,440	Jul 27
Fishing Season Start Date: June 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	Jun 30
Option B	112,362	96,631	Aug 30
Option C	128,649	110,583	Sep 14
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 7, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	Jun 29
Option B	112,362	92,137	Aug 25
Option C	128,649	105,440	Sep 8
Fishing Season Start Date: July 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	Jul 29
Option B	112,362	96,631	Oct 3
Option C	128,649	110,583	Oct 19
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 7, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	Jul 28
Option B	112,362	92,137	Sep 28
Option C	128,649	105,440	Oct 13

Table C3. Projected Gulf Scamp Complex closure dates expected for the recreational sector with each proposed 2026 Annual Catch Limit (ACL) alternative using a 3-year average 2022-2024. Source: SEFSC MRIP FES Recreational ACL Dataset (May 2025).

Fishing Season Start Date: January 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	May 1
Option B	112,362	96,631	June 18
Option C	128,649	110,583	Jun 28
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 7, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	Apr 28
Option B	112,362	92,137	Jun 15
Option C	128,649	105,440	Jun 24
Fishing Season Start Date: June 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	Jun 23
Option B	112,362	96,631	Aug 10
Option C	128,649	110,583	Aug 20
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 7, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	Jun 22
Option B	112,362	92,137	Aug 6
Option C	128,649	105,440	Aug 16
Fishing Season Start Date: July 1			
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 2 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	31,319	Jul 23
Option B	112,362	96,631	Sep 17
Option C	128,649	110,583	Oct 8
Action 5 Alternative 2 Options	Recreational ACL (lb gw)	Action 6, Alternative 3 Proposed Recreational ACT (lb gw)	Projected Closure
Option A	36,417	29,862	Jul 22
Option B	112,362	92,137	Sep 10
Option C	128,649	105,440	Sep 30

The reliability of these results is dependent upon the accuracy of the underlying data and input assumptions. The analysis intends to create a realistic baseline as a foundation for comparisons, under the assumption that projected future landings will accurately reflect actual future landings. These closure dates are our best estimate, but uncertainty still exists as economic conditions, weather events, changes in catch-per-unit effort, fisher response to management regulations, and a variety of other factors may cause departures from any assumption.

APPENDIX D: ACTION 3 SIMULATION AND PREDICTIVE ANALYSIS

Black Grouper Complex Predictive and Simulated Analyses to explore potential management approaches

Background information

Table D1. Catch levels in Amendment 58A

Year	OFL	ABC	Stock ACL	Comm ACL	Rec ACL
2027+	Undefined*	310,844	310,844	227,000	83,109

Black Grouper Complex Avg and SD Rec Landings (2000-2023): 22,852 +/- 40,239 lb

PSE range of black grouper only recreational landings (2000-2023): 31.1-96.9 with an average of 54.8 +/- 17.4.

Simulated Analysis

Recreational landings of the black grouper complex between 2000-2023 were used. To complete analysis, 100 iterations of simulated data were run. The simulations assumed a log-normal probability distribution using the average and standard error of black grouper complex landings (2000-2023). A PSE value was used to inform the standard error calculation. To test the effects of assuming differing PSE on the simulation outputs, 4 differing PSE values were run (0.1,0.3,0.5,0.9). Simulated values that were below zero were changed to zero, and values above 260,719 (the largest observed value of 179,806 in 2005 with an added PSE of 0.45) were capped at 260,719. For the 1-year approach, annual simulated values were generated. For the 3-year method, a 3-year moving average of the simulated values was generated. A total of 100 simulations were run and compared to the rec ACL as they appear in Action 3 of Amendment 58A.

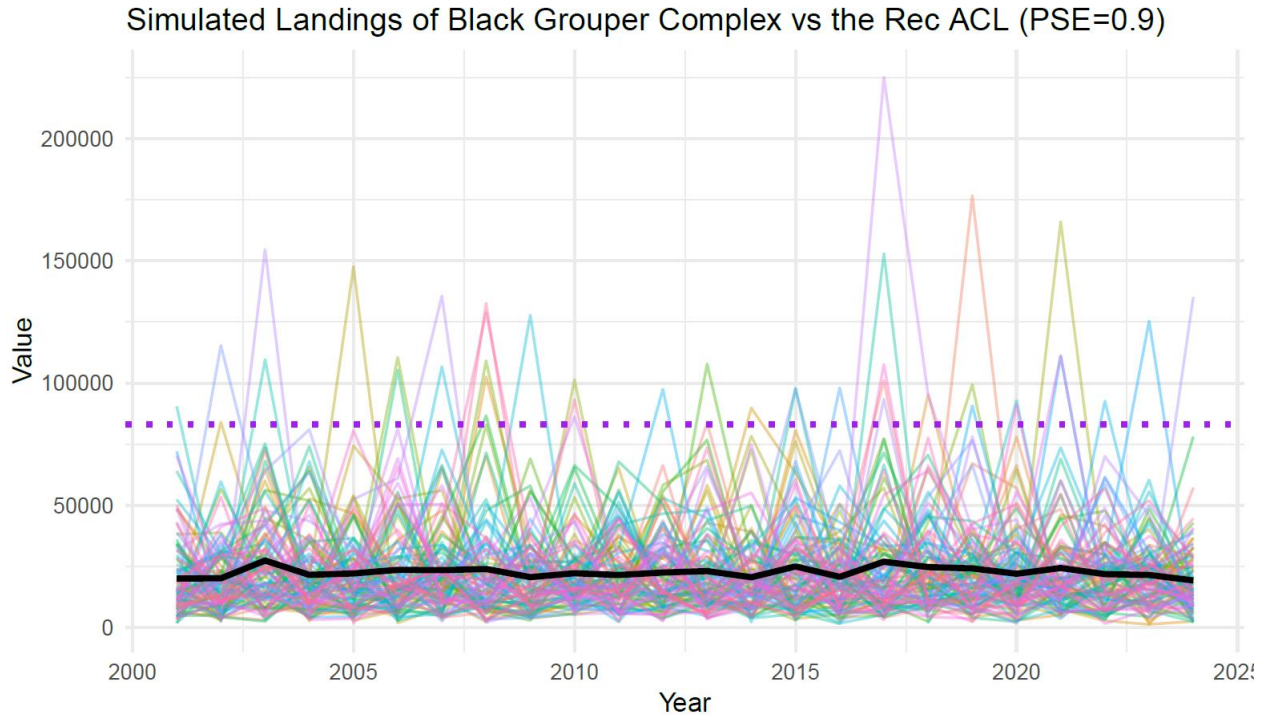


Figure D1: Simulation of 1-year approach with a PSE of 90%. For this result, 1.8% of simulated values exceeded the recreational ACL (horizontal dashed line).

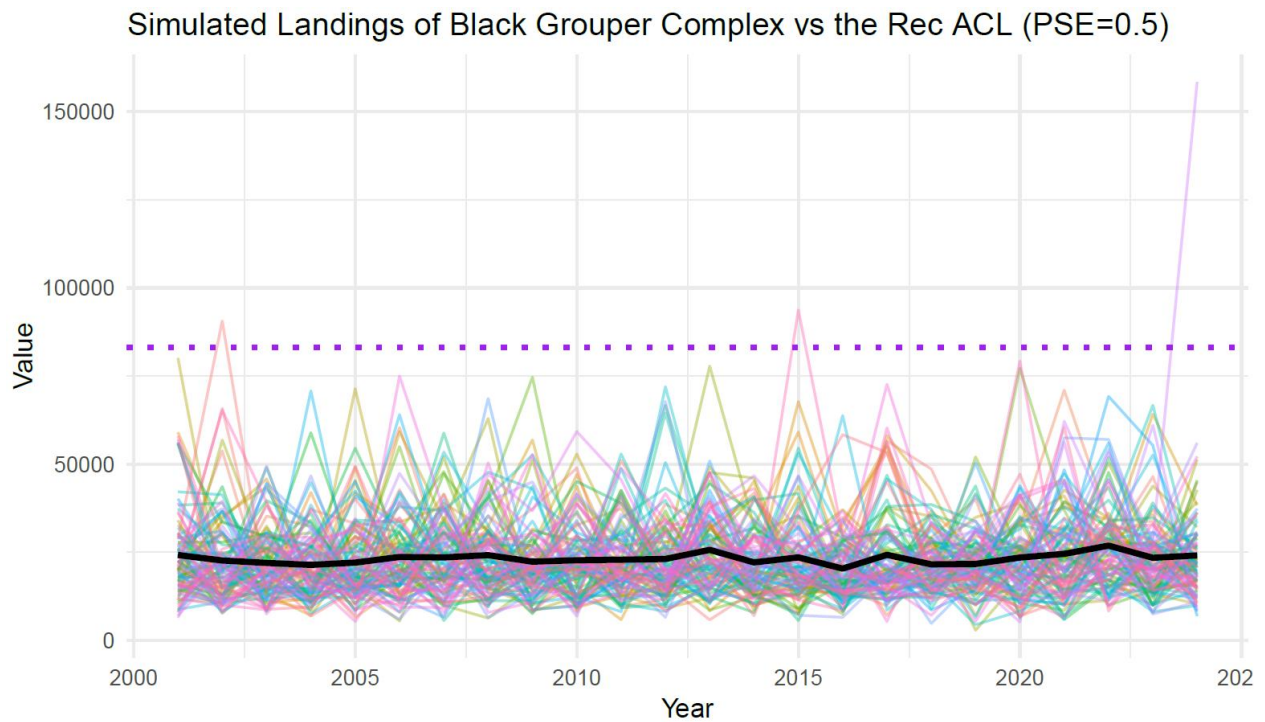


Figure D2: Simulation of 1-year approach with a PSE of 50%. For this result, 0.1% of simulated values exceeded the recreational ACL (horizontal dashed line).

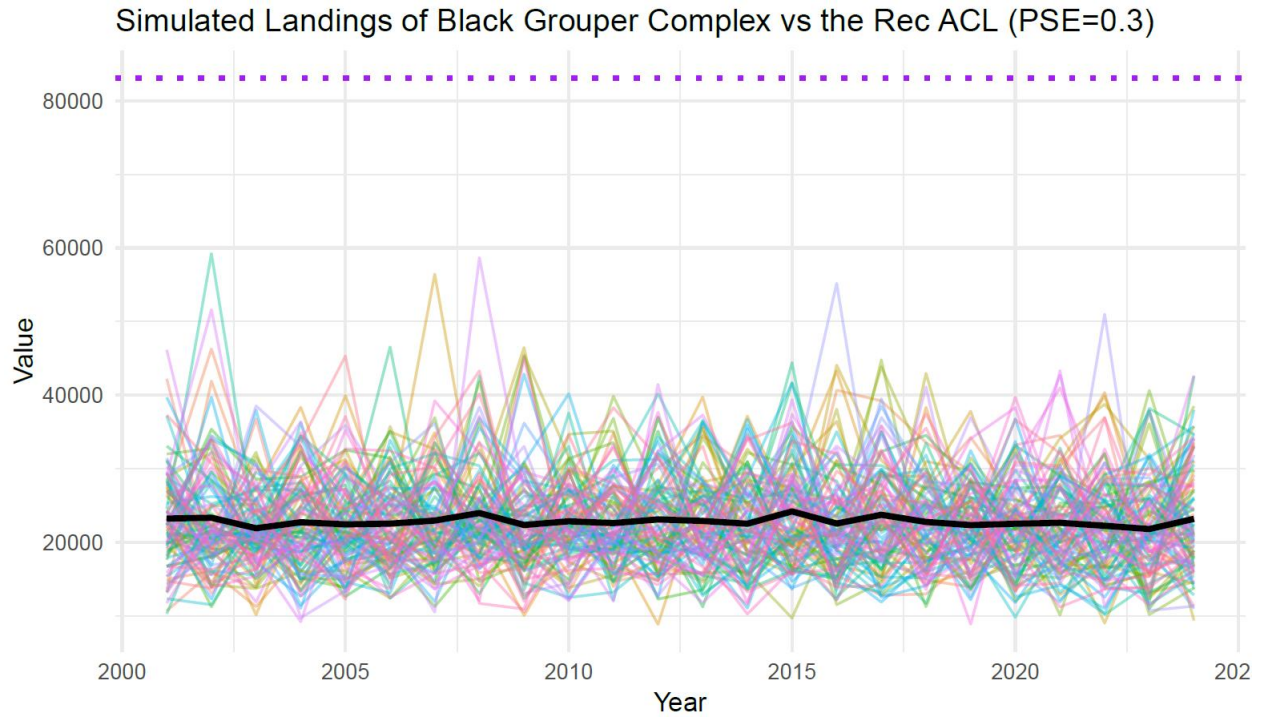


Figure D3: Simulation of 1-year approach with a PSE of 30%. For this result, none of the simulated values exceeded the recreational ACL (horizontal dashed line).

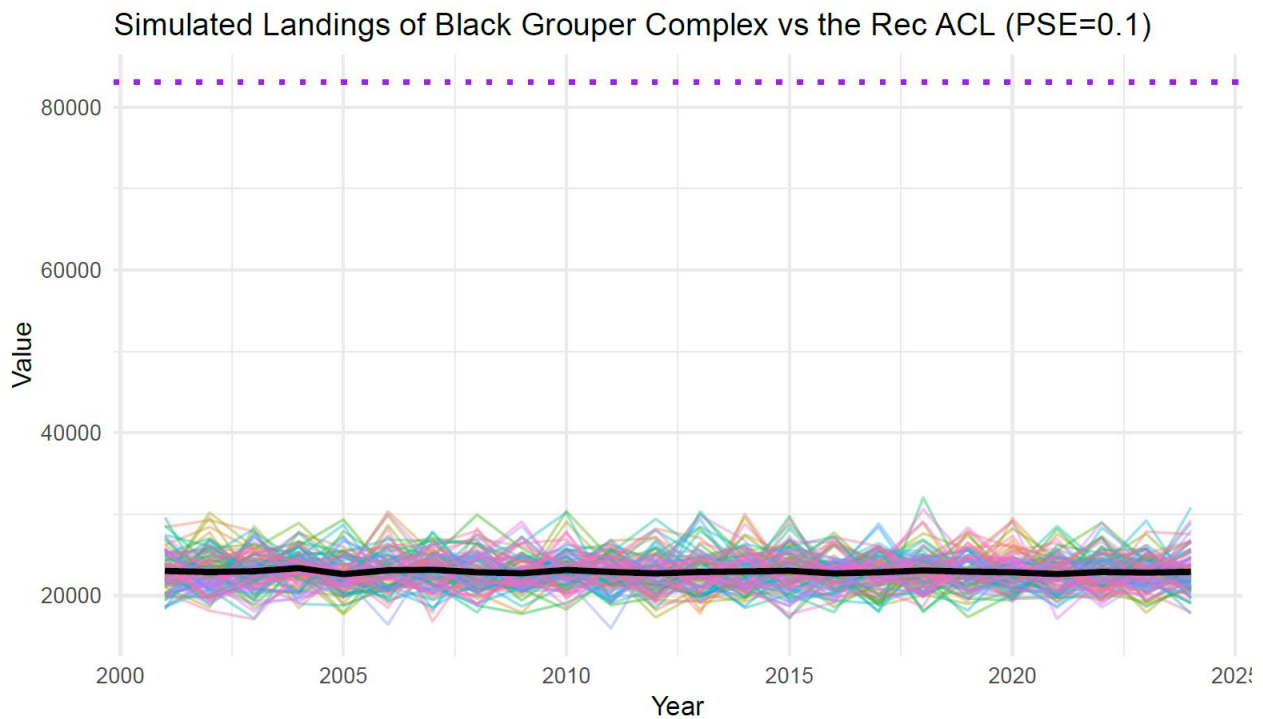


Figure D4: Simulation of 1-year approach with a PSE of 10%. For this result, 0.0% of simulated values exceeded the recreational ACL (horizontal dashed line).

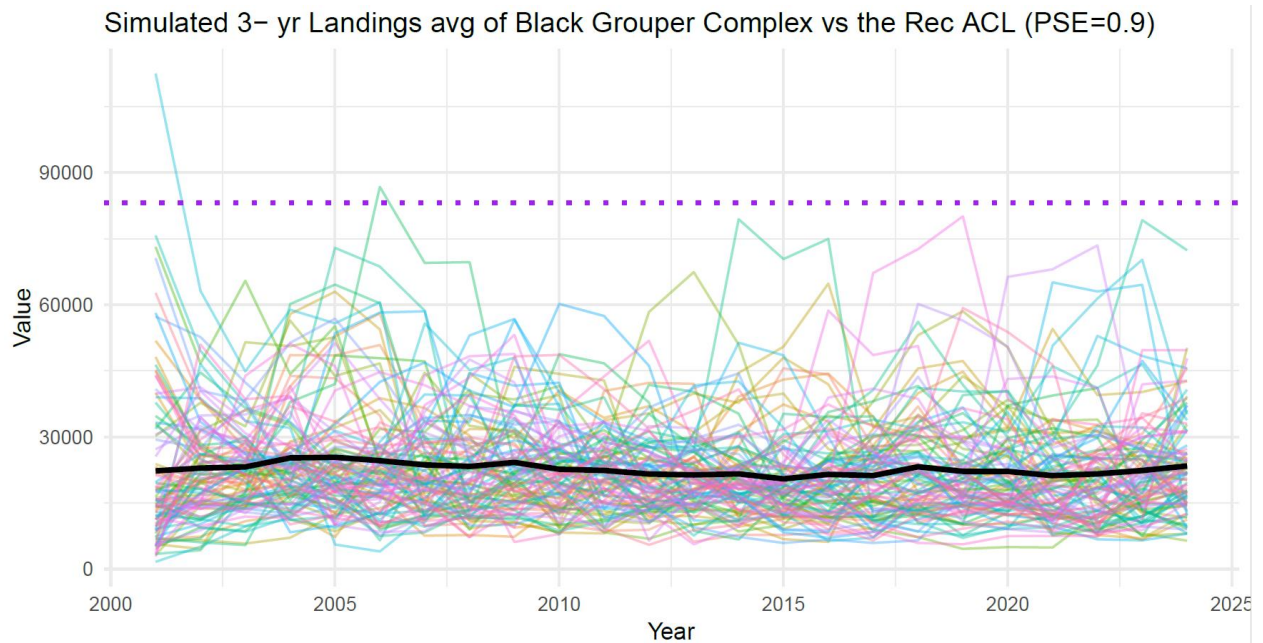


Figure D5: Simulation of 3-year approach with a PSE of 90%. For this result, 0.08% of simulated values exceeded the recreational ACL (horizontal dashed line).

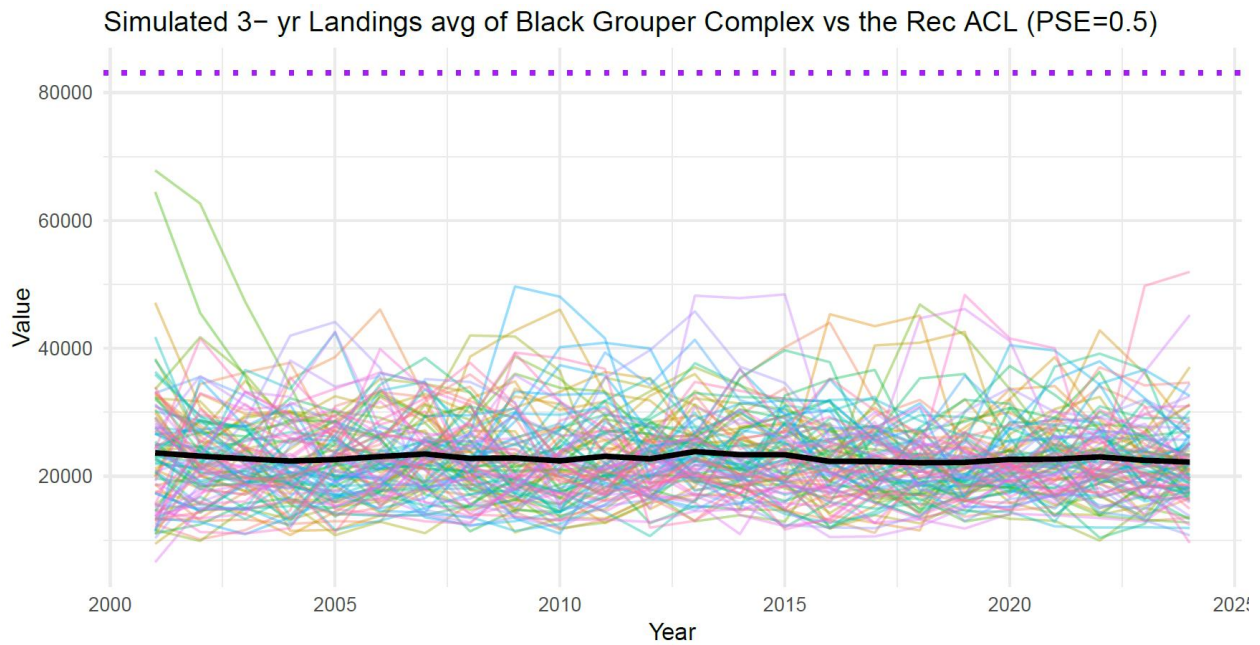


Figure D6: Simulation of 3-year approach with a PSE of 50%. For this result, 0.0% of simulated values exceeded the recreational ACL (horizontal dashed line).

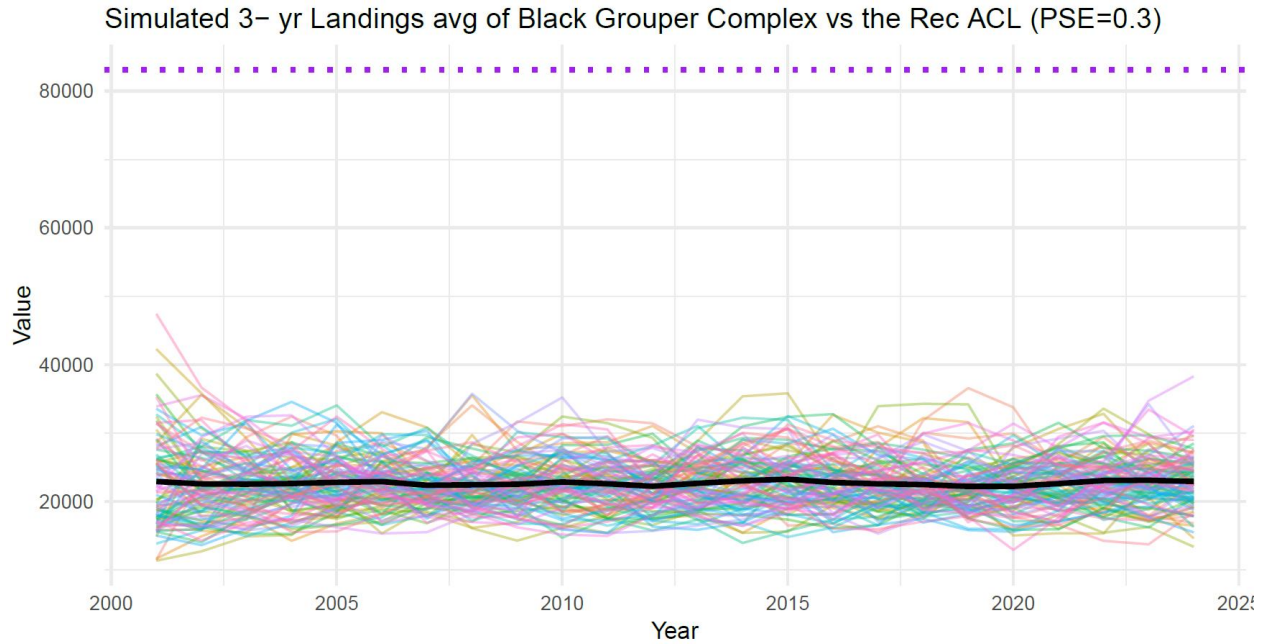


Figure D7: Simulation of 3-year approach with a PSE of 30%. For this result, 0.0% of simulated values exceeded the recreational ACL (horizontal dashed line).

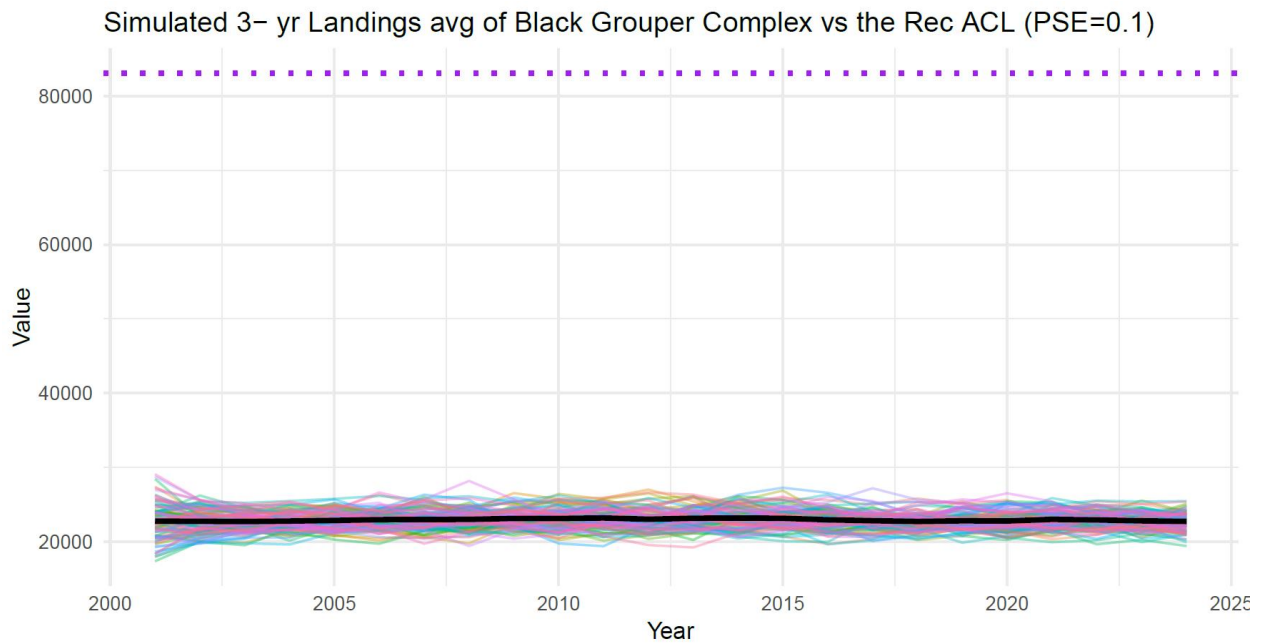


Figure D8: Simulation of 3-year approach with a PSE of 10%. For this result, 0.0% of simulated values exceeded the recreational ACL (horizontal dashed line).

Predictive Analysis

Naïve method: Whatever was harvested last year will be harvested this year

3-year moving average: Use the average of the three previous years to predict the next year

3-year weighted average: Values for selecting weights were optimized in Solver and resulted in a weight of (yr1[furthest]=0.25; yr2=0; yr3[closest]=.0.75)

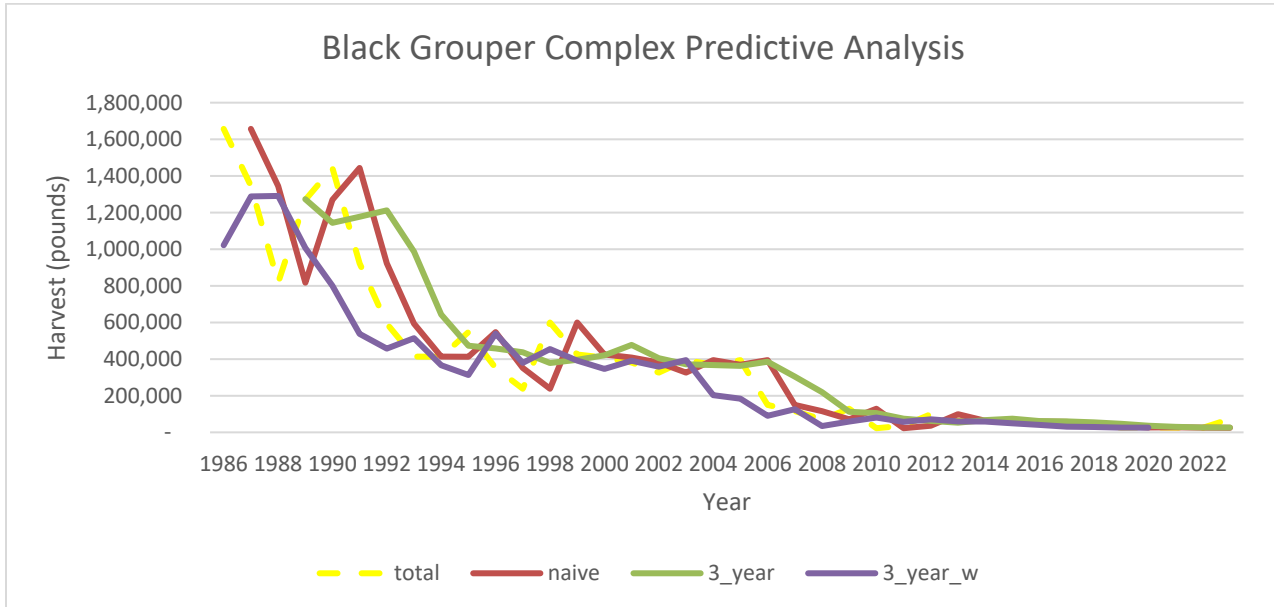


Figure D9: Results of predictive analysis (naïve, 3-year average, 3-year weighted average) for black grouper complex.

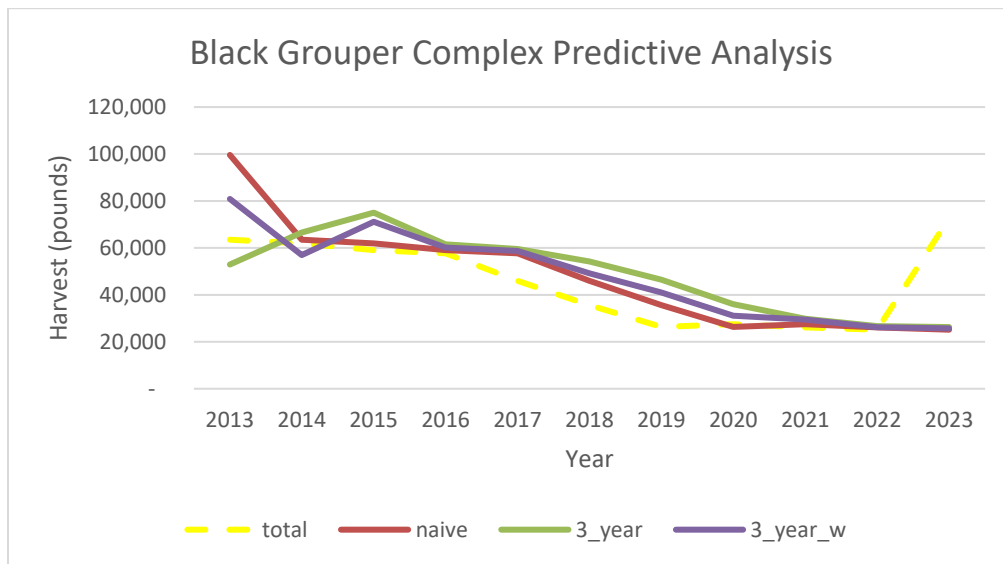


Figure D10: Comparative analysis illustrated in Figure D9 focusing on a more contemporary landings history (2013-2023).

APPENDIX E: GULF RECREATIONAL DATA COLLECTION SURVEYS

Recreational Data

History of Federal Data Collection for the Private Component of the Recreational Sector

The National Marine Fisheries Service (NMFS) created the MRFSS in 1979. In the Gulf, MRFSS collected recreational catch and effort data beginning in 1981. MRFSS included both the Coastal Household Telephone Survey (CHTS) and onsite interviews at marinas and other points where recreational anglers fish. In 2008, MRIP replaced MRFSS to meet increasing demand for more precise, accurate, and timely recreational catch estimates. Until 2013, recreational catch, effort, and participation were estimated through a suite of independent but complementary surveys: telephone surveys of households and for-hire vessel operators that collected information about recreational fishing activity and an angler intercept survey that collected information about the fish that were caught.

MRIP APAIS began incorporating a new survey design in 2013. This new design addressed concerns regarding the validity of the survey approach, specifically that trips recorded during a given time period are representative of trips for a full day, by extending the time period dockside samplers stayed at an assigned location (Foster et al. 2018). The more complete temporal coverage with the new survey design provides for consistent increases or decreases in APAIS angler catch rate statistics, which are used in stock assessments and management, for at least some species (NMFS 2019).

MRIP transitioned from CHTS to a new mail survey (FES) in 2015, and in 2018, MRIP-FES replaced MRIP-CHTS. Both survey methods collect data needed to estimate marine recreational fishing effort (number of fishing trips) by shore and private/rental boat anglers on the Atlantic and Gulf coasts. MRIP-CHTS used random-digit dialing of homes in coastal counties to contact anglers. The new mail-based FES uses angler license and registration information as one way to identify and contact anglers (supplemented with data from the U.S. Postal Service, which includes virtually all U.S. households). Because FES and CHTS are so different, NMFS conducted side-by-side testing of the two methods and found that, in general, total recreational fishing effort estimates generated from the FES are higher — and in some cases substantially higher — than the CHTS estimates (NMFS 2019). This is because the FES is designed to measure fishing activity more accurately than the CHTS, albeit while recognizing a greater degree of uncertainty in those landings estimates. This increase in estimated effort is not because there was a sudden rise in fishing effort, but rather because FES better targets actual fishery participants through the directed mail survey. Likewise, the increase in uncertainty about the effort estimates reflects uncertainty that was also present in CHTS but went unaccounted for due to biases that were identified as FES was developed. NMFS developed a calibration model to allow historic effort estimates using MRIP-CHTS to be compared to new estimates from MRIP-FES.

2023 MRIP-FES Pilot Study and 2024 Comprehensive Study

At the August 2023 Council meeting, the NMFS Office of Science and Technology (OST) discussed the release of a pilot study (NMFS 2023)³⁴, which evaluated potential respondents' bias (e.g., recall error) in the mail portion of the recreational FES survey used to estimate effort. The 2023 pilot study evaluated this bias for a portion of the year across several states, and preliminary results suggest the order of the questions in the survey led to overestimation of fishing effort by MRIP-FES. As a result of this, NMFS OST conducted a more comprehensive pilot study which began in 2024 and is expected to end data collection in 2025. NMFS OST plans to produce a public report with key findings and estimate comparisons in summer 2025 and determine if a new design will be implemented in 2026, pending study results and peer review. In mid-2026, NMFS OST is expecting to produce calibrated historical effort estimates to reflect the findings of the updated survey design for use in future stock assessments and fisheries management. Prior to when data calibration is finalized in spring 2026, any expectation about results would be speculative. After the updated survey data are finalized, it will then be available for evaluation by data users (e.g., the Southeast Fisheries Science Center, Southeast Regional Office, and the Council).

Gulf State Recreational Surveys

Since 2014, Louisiana generates weekly estimates of catch and effort through their LA Creel program. LA Creel uses a combination of data collected dockside (access point survey) and through weekly phone and email effort surveys to estimate recreational saltwater fish harvests. The LA Creel program consists of biologists conducting interviews at public fishing sites, with charter captains and groups of saltwater anglers about their fishing activities. LA Creel provides weekly recreational fishery information to aid in the management of Louisiana's fishery resources. It is composed of an on-site access-point survey and two weekly effort surveys stratified across five basins. The access point survey provides estimated catch rates per trip. One effort survey generates estimated private angler effort in the form of total angler trips and the other does the same for charter trips. Licensed private anglers are stratified across geographical regions and Louisiana's Recreational Offshore Landings Permit (ROLP) holders, while licensed charter captains are stratified between those with and without ROLP permits. Using licensed anglers provides a clearly defined angler frame with high quality contact information, while stratifying within this frame allows LA Creel to account for differences in fishing activity across the state. Access point survey assignments are randomly drawn based on fishing pressures weighted by the types of activities present and the total angler activity. LA Creel boasts production of weekly landings at the basin level on just a two-week delay, which can reduce recall bias and provide near real time landings estimates that can be used in monitoring recreational quotas and identifying impacts to recreational landings from short term events. LA Creel contacts for-hire captains via telephone at random, with a goal of reaching 30% of captains who fish offshore (those who hold a ROLP) and 10% who fish inshore (who do

³⁴ <https://www.fisheries.noaa.gov/recreational-fishing-data/fishing-effort-survey-research-and-improvements>

not hold a ROLP). During red snapper season, LA Creel contacts 100% of captains who hold offshore permits.³⁵

Alabama and Mississippi piloted versions of the LA Creel effort survey in their own states alongside the MRIP FES surveys in 2024. Beginning in 2025, both Alabama and Mississippi were operating their own iterations of LA Creel effort and dockside surveys (AL Creel and MS Creel, respectively) alongside MRIP APAIS and FES surveys.

Texas Parks and Wildlife Department (TPWD) conducts their own creel survey to estimate private and charter landings in Texas.³⁶ TPWD Sport-boat Angling Survey uses dockside interviews at recreational boat access sites to generate catch and effort estimates for finfish species caught by private boat and charter operators off the Texas coast. Texas reports recreational data in high (May 15 through November 20) and low (November 21 through May 14) activity periods. Creel surveys are conducted from 10 AM to 6 PM at specified boat-access sites along the Texas coast. Over 1,000 surveys are scheduled annually on randomly selected weekdays and weekends in proportion to the amount of fishing activity at each site. Charter vessel catch and effort data in Texas are monitored by the Texas Parks and Wildlife Department's Coastal Creel Survey. This is a field-intercept survey of boat-based fishing, including for-hire vessels. This survey estimates fishing effort and catch (harvest only) on a seasonal (high-use and low-use) basis.

Like all surveys, both the Louisiana and Texas state surveys have inherent uncertainty. Both LA Creel and the TPWD survey are only conducted in their state and therefore cannot generate Gulf-wide estimates. LA Creel is comparable in survey methodology to the MRIP design. The TPWD survey only produces landings estimates and reports every six-months. This time frame limits in-season monitoring for short fishing seasons (e.g., weeks or months). Both state effort surveys, like APAIS, are also limited to intercepting anglers at public access points and their willingness to answer dockside interview questions, and in the case of LA Creel, the effort (telephone survey) portion of the program.

³⁵ https://www.lafisheriesforward.org/wp-content/uploads/2024/02/LFF_FastFacts_LaCREEL_2024-01-ADA.pdf

³⁶ <https://tpwd.texas.gov/fishboat/fish/didyouknow/coastal/creel.phtml>

APPENDIX F: PUBLIC COMMENT RECEIVED

Council/Staff:

Ed Walker
Lisa Hollensead
Annie Sutor
John Froeschke
Carrie Simmons
Emily Muehlstein

14 Members of the Public in Attendance

Jim Zurbrick – Commercial, Steinhatchee, Florida

Pointed out that this amendment is reallocating this fishery. He had understood that we weren't going to do anything until the FES pilot program was finished. He suggests that we wait until the SSC can see the current FES pilot study before making this decision. If we waited for final action in April, this amendment would still be able to be enacted in 2027. He does not want to get us into an overfishing and overfished situation.

Steve Pappen – Charter and Commercial, Madeira Beach, Florida

Has worked in the charter and commercial sector for 30 years, fishing here and catching scamp here for his entire life. Some fish go through highs and lows, but the scamp population has been neutral, not much different than it was 30 years ago. He can still catch big ones past 240. Scamp aren't present in the areas they weren't found 30 years ago, and they're still in areas they were 30 years ago. There is not much data on the species. The only hard data is the IFQ data from commercial docks which is 100% accurate. Everything else is a dart being thrown on a wall. It will be hard to get industry support behind this amendment because nobody believes the numbers. He mentioned that there was a 200k pounds to 400k jump in recreational landings in one year which is hard to believe. The allocation should be weighted more commercial than recreational. Recreational guys don't catch much scamp. Commercial landings have declined because there is no available gag quota.

Pat Neukam – Commercial, Madeira Beach, Florida

We need to look at dead discards. Scamp isn't as hardy as other fish; they don't vent well. The recreational sector doesn't vent, and in the commercial sector they don't get vented as fast as they should. The Council needs to plan the scamp season around the gag season. If you cut scamp below 100,000 you will get 200,000 pounds of dead fish. If you pull up a scamp in 200 feet of water, it's dead. We had learned from gag that the recreational numbers were skewed, and we are now going back to the same problematic numbers, which will now affect the commercial side and the livelihood of commercial industries. He suggested that we should wait until MRIP calibrations before making a decision. Supports Action 5, Preferred Alt 2, option 2a, using the status quo allocation for scamp.

Kyle Paulhus – Recreational, Saint Petersburg, Florida

Does not catch a ton of scamp. He descends everything he releases. Suggested we should delay making a decision until MRIP FES is fixed. He supports Action 7.1, Preferred Alternative

3, starting the scamp season July 1st. Assuming the hurricanes will let people fish, they can catch scamp with gag.

Sean Heverin – Commercial Vessel Owner and Fish-House, Madeira Beach

He owns three longline boats, just built a bandit reel boat, and buys and sells fish across the Gulf. Ran the numbers and saw that they landed and sold 21% of SWG in the Gulf. He has guys in Louisiana who target scamp specifically. He supports Action 5, Preferred Alternative 2, Option 2a, and to keep the commercial sector scamp allocation at 80%. This is not out of his own interest as a commercial fisherman, but because the recreational data is incorrect. In the data, recreational landings are all over the map while commercial is very consistent over the years. The commercial sector shouldn't be unfairly treated, and scamp should not be taken away because the recreational data is not the best. Most recreational fishermen occasionally catch scamp, but it doesn't affect their livelihoods. He supports Action 7.1, Preferred Alternative 3, with a July 1st start date for the scamp season as recreational fishermen will want to catch gag and scamp on the same trip.

Tarik Gul – Seafood Dealer

He runs a seafood house and unloads fish. He does not get much scamp and last year unloaded under 500 pounds. Most fishermen release scamp because they don't have allocation, so they have dead discards. It could help if the commercial sector had more allocation so that they would be able to land more scamp. Supports Action 5, Preferred Alternative 2, Option 2a, and to keep the commercial sector scamp allocation at 80%.

Jason Delacruz – Commercial, Madeira Beach, Florida

Agrees with Sean Heverin. Supports Action 5, Preferred Alternative 2, Option 2a, and to keep the commercial sector allocation at 80%. He asks: if we've had this data for five years why do we have to take action now? We could potentially get better MRIP data in a few years. Every time we use FES, the results are bound to be problematic. He understands that if we don't do something that NMFS could be sued but is concerned that to pacify an NGO we will create a lot of dead fish by increasing dead discards. If you use the only good data source, landings are stable. He indicates that the stock assessment may be incorrect, and it doesn't make sense right now if we're on the precipice of getting better data. He agrees to keep the current 80% commercial allocation.

Keith Neukam – Commercial, Madeira Beach, Florida

Runs a longline vessel and owns a rod and reel boat. He doesn't want to see fish floating because there is not enough quota in the fish house. This creates a dead discard problem especially since predators are bad. We have a huge predator problem this year because we haven't had a hurricane blowing them out. He supports Action 5, Preferred Alt 2, Option 2a, to keep the status quo allocation for scamp.

Randy Schwab – Commercial, Madeira Beach, Florida.

Has rod and reel boats. Agrees with Action 5, Preferred Alt 2, Option 2a and supports the commercial sector keeping 80% of allocation for scamp.

APPENDIX G: ROUNDING OF COMMERCIAL ACL FOR IFQ SPECIES

Since the GT-IFQ program began, the quotas have been rounded down to the nearest 1,000 lb. This is necessary so that allocation is distributed the distributed allocation does not exceed the quota. Allocation is determined by multiplying the share percentage (limited to 6 decimal places) by the quota and allocation is then rounded to the nearest pound using standard rounding (0.5 and up rounds to the next highest integer). Without rounding, the allocation distributed could exceed the quota because slightly more than 100% of shares were distributed and summation of individual distributed allocations that were rounded using the standard method. As a result, the stock ACL will not equal exactly the summation of the commercial and recreational ACL.