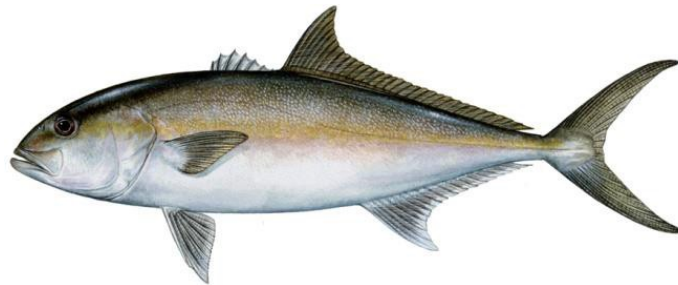


# Modifications to Gulf of Mexico Greater Amberjack Commercial Trip Limits



RP

## Options Paper for a Framework Action to the Fishery Management Plan for the Reef Fish Resources of the Gulf of Mexico

October 2018



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# ENVIRONMENTAL ASSESSMENT COVER SHEET

## Name of Action

Modifications to Gulf of Mexico Greater Amberjack Commercial Trip Limits

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## Type of Action

<input type="checkbox"/> Administrative	<input type="checkbox"/> Legislative
<input checked="" type="checkbox"/> Draft	<input type="checkbox"/> Final

## ABBREVIATIONS USED IN THIS DOCUMENT

ABC	acceptable biological catch
ACL	annual catch limit
ACT	annual catch target
Council	Gulf of Mexico Fishery Management Council
EIS	environmental impact statement
EA	environmental assessment
FMFLP	Fishery Management Plan
Gulf	Gulf of Mexico
gw	gutted weight
MFMT	maximum fishing mortality
MSST	minimum stock size threshold
MSY	maximum sustainable yield
NMFS	National Marine Fisheries Service
OY	optimum yield
RA	Regional Administrator
Reef Fish FMP	Reef Fish Fishery Management Plan
SEDAR	Southeast Data, Assessment and Review
SEFSC	Southeast Fisheries Science Center
SPR	spawning potential ratio
SSC	Scientific and Statistical Committee
TAC	total allowable catch
ww	whole weight

# TABLE OF CONTENTS

Environmental Assessment Cover Sheet .....	i
Abbreviations Used In This Document.....	ii
Table of Contents.....	iii
List of Tables.....	iv
List of Figures.....	v
Chapter 1. Introduction .....	1
1.1 Background .....	1
1.2 Purpose and Need.....	3
1.3 History of Management .....	3
Chapter 2. Management Alternatives.....	6
2.1 Action 1– Modify the Greater Amberjack Recreational Bag Limit .. <b>Error! Bookmark not defined.</b>	
2.2 Establish Seasonal Quotas for the Greater Amberjack Recreational Sector..... <b>Error! Bookmark not defined.</b>	
2.3 Action 3 – Modify the Greater Amberjack Commercial Trip Limit .....	6
Chapter 3. References .....	10

## LIST OF TABLES

<b>Table 1.1.1.</b> Acceptable biological catch, sector ACLs, and sector ACTs that were established in 2017 (GMFMC 2017a) based on the greater amberjack update stock assessment that indicated the stock was overfished and experiencing overfishing.....	1
<b>Table 1.1.2.</b> Commercial and recreational landings of greater amberjack (lbs ww) from 1992 through 2016.....	1
<b>Table 1.1.3.</b> Summary of recent annual commercial landings relative to management targets (lbs ww).....	3
<b>Table 1.1.4.</b> Summary of recent annual recreational landings relative to management targets (lbs ww).....	<b>Error! Bookmark not defined.</b>
<b>Table 2.1.1.</b> Percent reduction in recreational landings under <b>Options 2</b> and <b>3</b> relative to <b>Option 1</b> .....	<b>Error! Bookmark not defined.</b>
<b>Table 2.2.1.</b> Options to split the recreational quota between fall (August 1 – October 31) and spring (May 1 – May 30) seasons based on 2018/2019 fishing season quota....	<b>Error! Bookmark not defined.</b>
<b>Table 2.3.1.</b> Predicted percent reductions in Gulf greater amberjack commercial landings for a range of possible trip limits. ....	8
<b>Table 2.3.2.</b> Greater amberjack commercial sector predicted closure dates for four different trip limits.....	8

## LIST OF FIGURES

<b>Figure 1.1.1.</b> Recreational, commercial, and total landings (lbs ww) of greater amberjack from 2002 through 2016.....	2
<b>Figure 2.1.1.</b> Percent annual landings of recreationally harvested greater amberjack by month. .....	<b>Error! Bookmark not defined.</b>
<b>Figure 2.3.1.</b> Mean pounds per trip (gw) of landed greater amberjack (black line) from 2000 through 2017.....	7
<b>Figure 2.3.2.</b> Pounds per trip (gw) of commercially harvested greater amberjack in 2016-2017.	9

# CHAPTER 1. INTRODUCTION

## 1.1 Background

In 2016, the Gulf of Mexico (Gulf) greater amberjack stock assessment update to Southeast Data Assessment and Review (SEDAR) 33 (2016) was completed and reviewed by the Gulf of Mexico Fishery Management Council’s (Council) Scientific and Statistical Committee (SSC) at its March 2017 meeting. The SSC accepted the SEDAR 33 update assessment as the best scientific information available, concluded that greater amberjack was still overfished and undergoing overfishing, and that the stock would not be rebuilt by 2019 as previously projected. To address this result, the Council recently completed a framework action (GMFMC 2017a) to modify the acceptable biological catch (ABC), sector-specific annual catch limits (ACLs), and annual catch targets (ACTs) for greater amberjack (Table 1.1.1.). For greater amberjack, the respective sector ACTs are equal to the quota. This 2017 framework action also modified the recreational closed season from June through July to January through June. The Council intended for this closed season to be a short-term measure to reduce harvest and protect the stock during peak spawning months while the Council considered options for establishing two separate fishing seasons: one in the spring and one in the fall. The final rule implementing these changes was published on December 28, 2017 and effective January 27, 2018. The Council completed a second greater amberjack framework action (GMFMC 2017b) which modified the recreational fishing year to begin August 1 each year and modified the recreational closed season to create two separate open seasons: August 1 – October 31 and May 1 – May 30. The final rule implementing these changes was published on March 29, 2018 and was effective April 30, 2018.

**Table 1.1.1.** Greater amberjack ABC, sector ACLs, and sector ACTs that were established in 2017 (GMFMC 2017a) based on the SEDAR 33 update assessment (2016). The recreational fishing year is defined as August 1 – July 31 and the commercial fishing year is January 1 – December 31.

Recreational Fishing Year	ABC (lbs ww)	Recreational		Commercial		
		ACL (lbs ww)	ACT (quota) (lbs ww)	Commercial Fishing Year	ACL (lbs ww)	ACT (quota) (lbs ww)
2017/2018	1,182,000	862,860	716,173	2018	319,140	277,651
2018/2019	1,489,000	1,086,970	902,185	2019	402,030	349,766
2019/2020+	1,794,000	1,309,620	1,086,985	2020+	484,380	421,411

Source: GMFMC 2017a

The commercial sector harvest of greater amberjack is also managed to an ACT (quota) and the fishery is closed each year when the quota is met or projected to be met for the remainder of the fishing year. The commercial season opens January 1 each year, is closed from March 1 through May 30 and re-opens on June 1 if the quota has not been met. As with the recreational sector, once the commercial quota has been harvested, the fishery is closed for the remainder of the fishing year. Greater amberjack are rarely a target species by the commercial sector, with the majority of trips harvesting 500 lbs or less. Greater amberjack are typically caught while



targeting other reef fish species. Commercial fishermen prefer to have as long of a season as possible as these incidentally caught fish must be discarded if the season is closed. To address this problem, NMFS previously implemented a commercial trips limit of 1,923 lbs gutted weight (gw) in 2013 (GMFMC 2012), and further reduced the trip limit to 1,500 lbs gw in 2016 (GMFMC 2015). Despite these changes, the fishery routinely meets or exceeds the commercial quota before year end requiring an in-season closure and payback of any overage if the commercial ACL is exceeded. The Council is considering further reductions in the commercial trip limit in an effort to reduce the harvest rate and increase the length of the commercial season without exceeding the quota, which triggers the in-season closure. Because the action in this document is focused on the commercial sector, further information on the recreational sector pertaining to the harvest of greater amberjack will be limited.

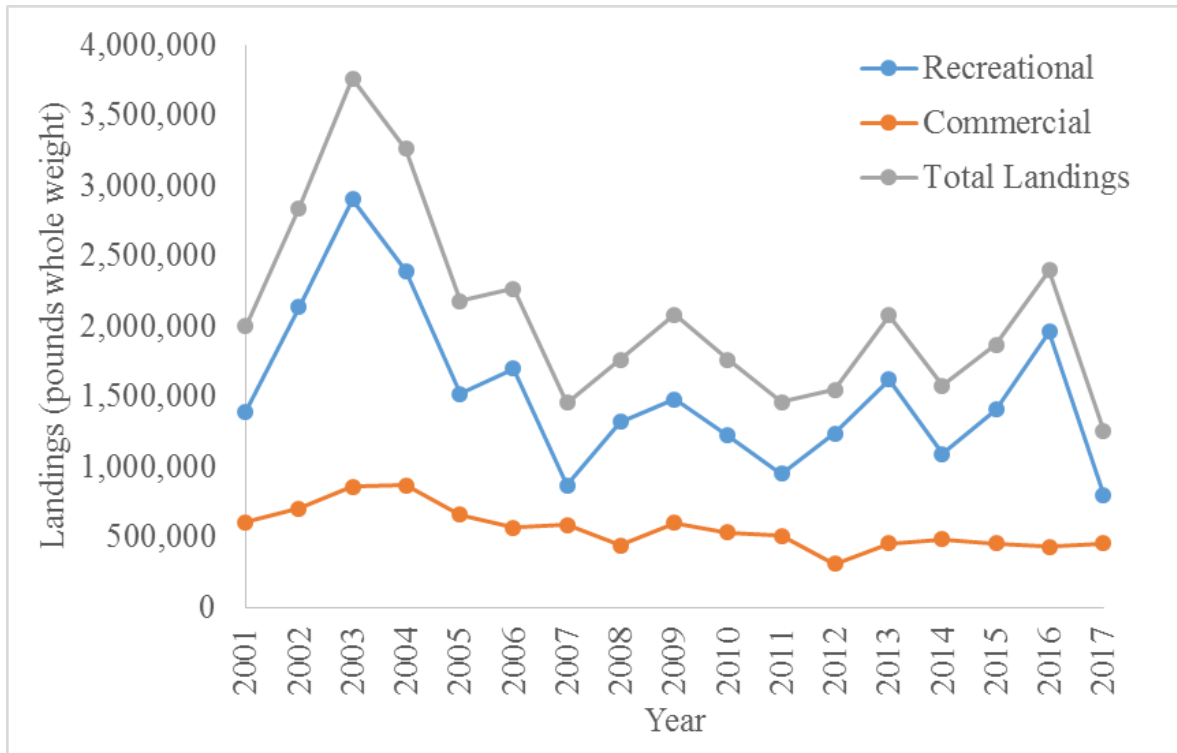
### **Landings Data**

Total annual landings of greater amberjack have ranged from 1.248 mp ww in 1999 to 4.873 mp ww in 1992 (Table 1.1.2). From 2006 through 2016, landings have averaged 1.840 mp ww without trend over this time period (Figure 1.1.1). A summary of landings relative to management targets and season closure dates is in Table 1.1.3 (commercial) and Table 1.1.4 (recreational). The accountability measures (AM) implemented in Amendment 30A (GMFMC 2008) required that any annual harvest exceeding either the recreational or commercial ACL be deducted from the applicable sector ACL and ACT (quota) in the subsequent calendar year. Also, these overage adjustments are made on preliminary landings as final landings are not completed by the beginning of the subsequent calendar year. This may result in minor deviations from the final overage (if any) and the overage deduction.

**Table 1.1.2.** Commercial and recreational landings of greater amberjack (lbs ww) from 2001 through 2017. Recreational landings are broken up into private angling, charter vessel, and headboat components.

<b>Year</b>	<b>Charter</b>	<b>Headboat</b>	<b>Private</b>	<b>Rec Total</b>	<b>Commercial</b>	<b>Total</b>
<b>2001</b>	512,556	89,436	791,315	1,393,307	605,285	1,998,592
<b>2002</b>	1,114,754	160,636	857,969	2,133,359	703,303	2,836,662
<b>2003</b>	1,072,018	199,347	1,630,455	2,901,820	857,125	3,758,945
<b>2004</b>	1,068,814	108,769	1,214,647	2,392,230	870,953	3,263,183
<b>2005</b>	365,893	61,281	1,089,981	1,517,155	662,285	2,179,440
<b>2006</b>	1,030,943	79,892	589,351	1,700,186	566,384	2,266,570
<b>2007</b>	516,253	59,436	291,797	867,486	589,235	1,456,721
<b>2008</b>	478,614	54,544	785,504	1,318,662	440,936	1,759,598
<b>2009</b>	653,160	103,191	723,964	1,480,315	601,446	2,081,761
<b>2010</b>	460,740	53,203	711,282	1,225,225	534,095	1,759,320
<b>2011</b>	583,813	62,835	303,351	949,999	508,871	1,458,870
<b>2012</b>	546,086	99,680	592,952	1,238,718	308,334	1,547,052
<b>2013</b>	605,860	73,246	941,655	1,620,761	457,879	2,078,640
<b>2014</b>	333,485	46,435	710,128	1,090,048	486,679	1,576,727
<b>2015</b>	757,327	58,513	591,711	1,407,551	458,693	1,866,244
<b>2016</b>	531,898	20,210	1,410,452	1,962,560	432,573	2,395,133
<b>2017</b>	-	-	-	802,889	454,439	1,257,328

Source: Southeast Fisheries Science Center recreational and commercial (10/25/2018) ACL datasets. Recreational landings exclude Monroe County, Florida.



**Figure 1.1.1.** Recreational, commercial, and total landings (lbs ww) of greater amberjack from 2001 through 2017. Recreational landings were estimates from the Marine Recreational Information Program, Texas Parks and Wildlife Department, LA Creel, and Southeast Region Headboat Surveys.

Source: SEFSC recreational and commercial (10/25/2018) ACL datasets.

**Table 1.1.3.** Summary of commercial landings relative to management targets (lbs ww) for 2008 - 2017. This time period covers the recent commercial closures for greater amberjack in the Gulf.

Commercial								
Year	Landings	ACT (quota)	Adjusted ACT	ACT %	ACL	Adjusted ACL	ACL %	Closure Date
2008	440,936	503,000		87.7			NA	
2009	601,446	503,000		119.6			NA	11/7/2009
2010	534,095	503,000	373,072	143.2			NA	10/28/2010
2011	508,871	503,000	342,091	148.8			NA	6/18/2011
2012	308,334	409,000	237,438	129.9	481,000	237,438	129.9	3/1/2012
2013	457,879	409,000	338,157	135.4	481,000	410,157	111.6	7/1/2013
2014	486,679	409,000		119.0	481,000		101.2	8/25/2014
2015	458,693	409,000		112.4	481,000		95.6	7/19/2015
2016	432,573	394,740		110.8	464,400		94.2	7/17/2016
2017	454,439	394,740		115.1	464,400		97.9	6/20/2017

Source: Southeast Fisheries Science Center commercial (10/25/18) ACL dataset.

## 1.2 Purpose and Need

The purpose of this framework action is to modify the greater amberjack commercial trip limit.

The need for this amendment is to extend the greater amberjack commercial fishing season while constraining harvest to the management targets so that overfishing does not occur and the stock is rebuilt.

## 1.3 History of Management

The Reef Fish Fishery Management Plan (Reef Fish FMP) (with environmental impact statement [EIS]) was implemented in November 1984. The original list of species included in the management unit consisted of snappers, groupers, and sea basses. Gray triggerfish and *Seriola* species, including greater amberjack, were in a second list of species included in the fishery, but not in the management unit. The species in this list were not considered to be target species because they were generally taken incidentally to the directed fishery for species in the management unit. Their inclusion in the Reef Fish FMP was for purposes of data collection, and their take was not regulated. The following history of management focuses on the commercial sector for greater amberjack.

**Amendment 1** (with environmental assessment [EA]), implemented in 1990, added greater amberjack and lesser amberjack to the list of species in the management unit. It set a greater amberjack recreational minimum size limit of 28 inches fork length (FL) and a commercial minimum size limit of 36 inches FL. This amendment's objective was to stabilize the long-term

population levels of all reef fish species. A framework procedure for specification of total allowable catch (TAC) was created to allow for annual management changes. This amendment also established a commercial vessel reef fish permit as a requirement for harvest in excess of the bag limit and for the sale of reef fish.

**Amendment 4** (with EA), implemented in 1992, added banded rudderfish and almaco jack to the management unit and established a moratorium on the issuance of new commercial reef fish vessel permits for a maximum period of 3 years.

**Amendment 5** (with supplemental EIS), implemented in 1994, 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.

**Amendment 15** (with EA), implemented in 1998, closed the commercial harvest of greater amberjack in the Gulf during the months of March, April, and May.

**Regulatory Amendment** (with EA), implemented in 1999, closed two areas (i.e., created two marine reserves), 115 and 104 square nautical miles respectively, year-round to all fishing under the jurisdiction of the Council with a 4-year sunset clause.

**Generic Sustainable Fisheries Act Amendment** (with EA), partially approved and implemented in 1999, set the maximum fishing mortality threshold (MFMT) for greater amberjack at the fishing mortality necessary to achieve 30% of the unfished spawning potential ratio (SPR)  $F_{30\% SPR}$ . Estimates of maximum sustainable yield (MSY), minimum stock size threshold (MSST), and optimum yield (OY) were disapproved because they were based on SPR proxies rather than biomass-based estimates.

**Secretarial Amendment 2** (with EIS), implemented in 2003, specified MSY for greater amberjack as the yield associated with  $F_{30\% SPR}$  (proxy for  $F_{MSY}$ ) when the stock is at equilibrium, OY as the yield associated with an  $F_{40\% SPR}$  when the stock is at equilibrium, MFMT equal to  $F_{30\% SPR}$ , and MSST equal to  $(1-M) \cdot B_{MSY}$  (where  $M$  = natural mortality) or 75% of  $B_{MSY}$ . It also set a rebuilding plan limiting the harvest to 2,900,000 lbs for 2003-2005, 5,200,000 lbs for 2006-2008, 7,000,000 lbs for 2009-2011, and for 7,900,000 lbs for 2012. This was expected to rebuild the stock in seven years. Regulations implemented in 1997 and 1998 (Amendments 12 and 15 to the Reef Fish FMP) were deemed sufficient to comply with the rebuilding plan so no new regulations were implemented.

**Amendment 30A** (with EIS), implemented in 2008, was developed to stop overfishing of gray triggerfish and greater amberjack. The amendment established ACLs and AMs for greater amberjack and gray triggerfish. For greater amberjack, the rebuilding plan was modified, increasing the recreational minimum size limit to 30 inches FL, implementing a zero bag limit for captain and crew of for-hire vessels, and setting commercial and recreational ACTs (quotas). **Amendment 30A** also established an allocation for greater amberjack harvest of 73% recreational and 27% commercial, which would be in effect until such time that the Council, through the recommendations of an Ad Hoc Allocation Committee, could implement a separate

amendment that fairly and equitably allocated Reef Fish FMP resources between recreational and commercial sectors.

**Amendment 35** (with EA), implemented in 2012 in response to a 2010 update stock assessment, established a new ACL equal to the ABC at 1,780,000 lbs, which was less than the current ACL of 1,830,000 lbs. Reducing the ABC by 18% was expected to end overfishing. The rule also established a commercial trip limit of 2,000 lbs whole weight (ww) throughout the fishing year.

**2015 Framework Amendment** (with EA), implemented in 2016 decreased the total ACL from 1,780,000 lbs to 1,720,000 lbs, set the commercial ACL at 464,400 lbs and the commercial ACT (quota) at 394,740 lbs, and reduced the commercial trip limit from 2,000 lbs to 1,500 lbs.

**2017 Framework Amendment** (with EA), was implemented in 2017. The commercial greater amberjack ACL was set at 319,140 lbs ww for 2018, 402,030 lbs ww for 2019, and 484,380 lb ww for 2020 and subsequent fishing years. The commercial greater amberjack ACT (quota) was set at 277,651 lbs ww for 2018, 349,766 lbs ww for 2019, and 421,411 lbs ww for 2020 and subsequent fishing years. In addition, this framework established a new rebuilding timeframe, which ends in 2027.

## CHAPTER 2. MANAGEMENT ALTERNATIVES

### 2.1 Action 1 – Modify the Greater Amberjack Commercial Trip Limit

**Alternative 1:** No Action – Do not modify the current commercial trip limit of 1,500 lbs gutted weight (gw) (1,560 lbs whole weight [ww]).

**Alternative 2:** Reduce the commercial trip limit to 1,000-lbs gw (1,040-lbs ww).

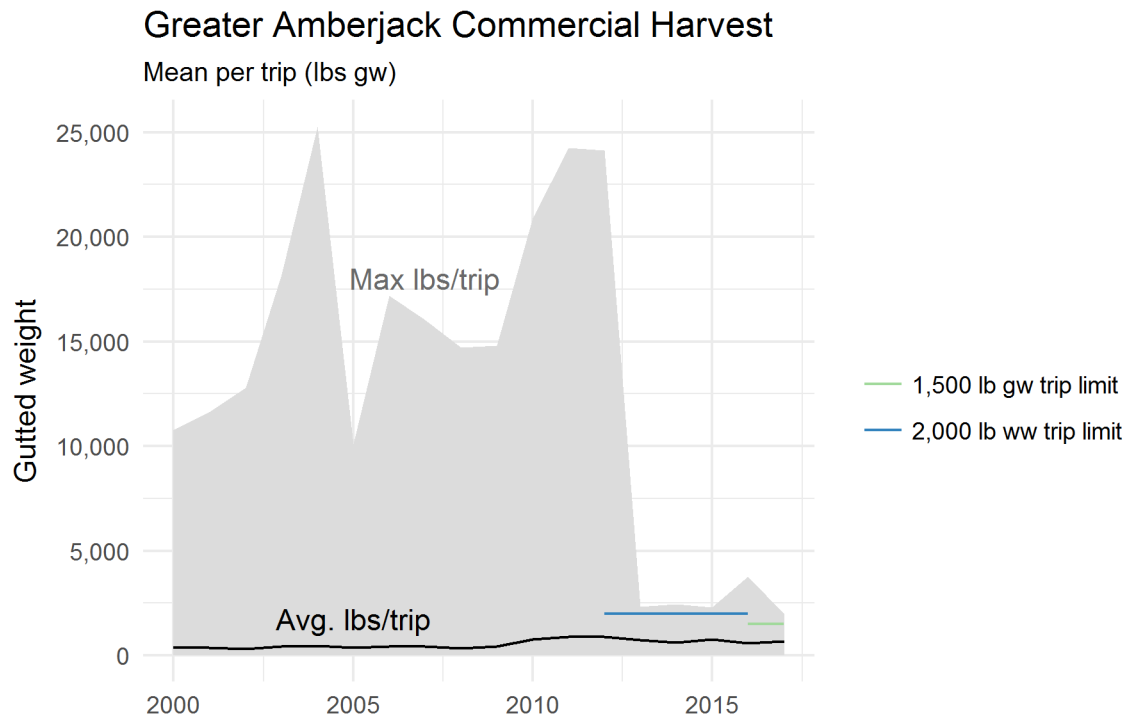
**Alternative 3:** Reduce the commercial trip limit to 750-lbs gw (780-lbs ww).

**Alternative 4:** Reduce the commercial trip limit to 500-lbs gw (520-lbs ww).

#### Discussion

Commercially harvested greater amberjack are typically landed gutted rather than whole. As such, the management alternatives are stated in gutted weight with equivalent whole weight conversions noted in parentheses. The current trip limit (**Alternative 1**) is specified in pounds whole weight.

Action 1 includes options to reduce the commercial trip limit for greater amberjack. Prior to 2013, there was no commercial trip limit for greater amberjack. In 2013, a 2,000 lb ww (1,923 lbs gw) trip limit was implemented to slow the rate of harvest and extend the commercial fishing season (GMFMC 2012). In 2016, the trip limit was further reduced to 1,500 lbs gw (1,560 lbs ww) in an additional effort to extend the season (GMFMC 2015). Few commercial fisherman target greater amberjack and landings primarily occur while fishermen are targeting other reef fish species. Most trips land less than 500 lbs gw and the trip limit on average, and the implementation of trip limits, have not affected this pattern for the majority of vessels (Figure 2.1.1 and Figure 2.1.2). The trip limits have restricted the activity of a few fishermen who were likely targeting greater amberjack and harvesting large quantities per trip. While these actions have had little impact on average landings per trip, the commercial sector has consistently reached or exceeded its ACL prior to the end of the fishing season requiring in-season closures. In some cases, the ACL overages were deducted from the ACL in the subsequent fishing year. The commercial season for greater amberjack has closed before the end of the fishing year each year since 2009 (Table 1.1.3).



**Figure 2.1.1.** Mean pounds per trip (gw) of landed greater amberjack (black line) from 2000 through 2017. Gray shaded area indicates range of landings. Dark blue (2,000 lb ww) and green (1,500 lb gw) lines indicate the implementation of trip limits. The maximum pounds per trip landed declined dramatically with the implementation of trip limits.

The current trip limit (**Alternative 1**) is 1,500 lbs gw (1,560 lbs ww) and was implemented on January 4, 2016. Available logbook data from 2016 and 2017 were analyzed to determine the distribution of catch per trip after the 1,500 lbs gw trip limit started. The majority of trips harvesting greater amberjack land less than 500 lbs gw per trip (Figure 2.1.2). Approximately 17% of trips harvested between 1,251 and 1,500 lbs suggesting that they may have been harvesting up to the allowable trip limit. **Alternative 2** would reduce the trip limit to 1,000 lbs gw, **Alternative 3** to 750 lbs gw, and **Alternative 4** to 500 lbs gw. To examine the effect of reduced trip limits on the commercial season, a trip limit analysis was completed using the historical trip data. For this analysis, trips harvesting greater than 1,000 lbs gw (**Alternative 2**), 750 lbs gw (**Alternative 3**), or 500 lbs gw (**Alternative 4**) were converted to the specified option trip limit and the total harvest. The resulting number of days required to harvest the quota was then re-calculated. This procedure followed the same methodology used previously to consider trip limits for greater amberjack (GMFMC 2012, GMFMC 2015) but the current analyses were based on the most recent data available. **Alternative 2** is expected to reduce commercial landings by 17.6%, **Alternative 3**, by 31.3%, and **Alternative 4**, by 48.8% (Table 2.1.1)



**Table 2.1.1.** Predicted percent reductions in Gulf greater amberjack commercial landings for a range of possible trip limits. The current trip limit is 1,500 lbs gw.

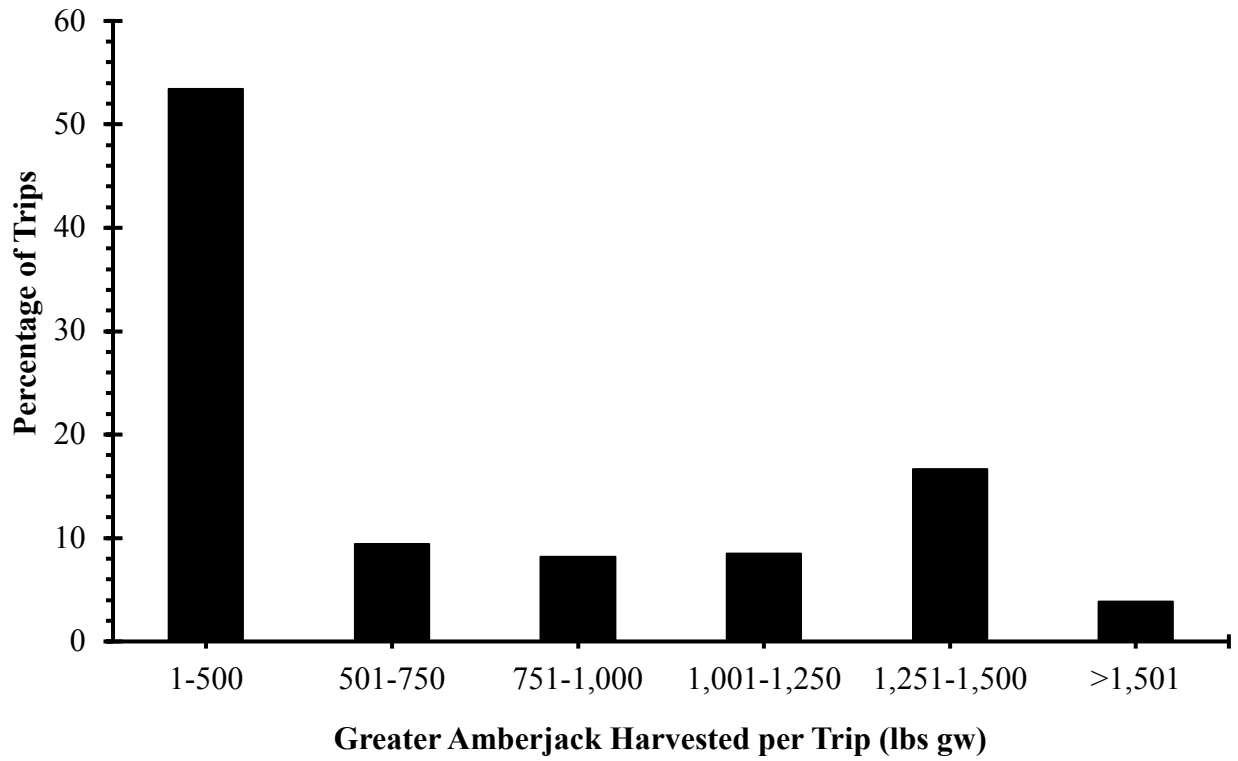
Trip Limit (lbs gw)	Percent Reduction
<b>Opt. 1: 1500</b>	0
<b>Opt. 2: 1,000</b>	17.6
<b>Opt. 3: 750</b>	31.3
<b>Opt. 4: 500</b>	48.8

Source: Data come from the commercial logbook dataset for 2016 through 2017, where 2017 data are not complete.

Commercial fishing for greater amberjack opens January 1 each year with a fixed closed season from March 1 through May 31. The fishery re-opens June 1 and is closed when the quota is met or projected to be met. In 2018, the commercial quota was exceeded prior to the March 1 – May 31 closure and will not re-open for the remainder of the year. **Alternative 1** is expected to have a 79-day fishing season and close June 21 (Table 2.1.2). **Alternative 2** would reduce the trip limits to 1,000 lbs gw and reduce the rate of harvest 17.6% relative to **Alternative 1**. This would increase the season 16 days and close on July 7. **Alternative 3** would reduce the trip limit to 750 lbs gw and reduce harvest rate by 31.3% relative to **Alternative 1**. This is projected to extend the season to 119 days (close date July 31). **Alternative 4** would reduce the trip limit to 500 lbs gw and provide the greatest reduction in harvest rate (48.8%) relative to **Alternative 1** and provide the longest season of the options under consideration (166 days, close date September 16; Table 2.1.2). However, none of the options would reduce the harvest rate sufficiently to avoid an in-season closure prior to the end of the calendar year. If the intent is to remain open all year, additional options below 500 lbs gw may warrant consideration.

**Table 2.1.2.** Greater amberjack commercial sector predicted closure dates for four different trip limits. Closure dates are when the quota of 349,766 lbs ww for 2019 is projected to be harvested. “Days Open” is the total number of days open for greater amberjack harvest for the fishing year.

Trip Limit (lbs gw)	Closure Date	Days Open
	2018 ACT	
<b>Opt. 1: 1500</b>	21-Jun	79
<b>Opt. 2: 1,000</b>	7-Jul	95
<b>Opt. 3: 750</b>	31-Jul	119
<b>Opt. 4: 500</b>	16-Sep	166



**Figure 2.1.2.** Pounds per trip (gw) of commercially harvested greater amberjack in 2016-2017. Source: Southeast Fisheries Science Center (SEFSC) logbook data as of November 6, 2017 (n = 1,307 trips). Logbook data for 2017 are not complete.

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