

# Regulatory Amendment 32 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region



**Revise accountability measures for yellowtail snapper**



**Including a Regulatory Impact Review and  
Regulatory Flexibility Act Analysis**

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## Definitions, Abbreviations, and Acronyms Used in the Document

<b>ABC</b>	acceptable biological catch	<b>FMP</b>	fishery management plan
<b>ACL</b>	annual catch limits	<b>FMU</b>	fishery management unit
<b>AM</b>	accountability measures	<b>M</b>	natural mortality rate
<b>ACT</b>	annual catch target	<b>MARMAP</b>	Marine Resources Monitoring Assessment and Prediction Program
<b>B</b>	a measure of stock biomass in either weight or other appropriate unit	<b>MFMT</b>	maximum fishing mortality threshold
<b>B<sub>MSY</sub></b>	the stock biomass expected to exist under equilibrium conditions when fishing at $F_{MSY}$	<b>MMPA</b>	Marine Mammal Protection Act
<b>B<sub>OY</sub></b>	the stock biomass expected to exist under equilibrium conditions when fishing at $F_{OY}$	<b>MRFSS</b>	Marine Recreational Fisheries Statistics Survey
<b>B<sub>CURR</sub></b>	the current stock biomass	<b>MRIP</b>	Marine Recreational Information Program
<b>CPUE</b>	catch per unit effort	<b>MSFCMA</b>	Magnuson-Stevens Fishery Conservation and Management Act
<b>DEIS</b>	draft environmental impact statement	<b>MSST</b>	minimum stock size threshold
<b>EA</b>	environmental assessment	<b>MSY</b>	maximum sustainable yield
<b>EEZ</b>	exclusive economic zone	<b>NEPA</b>	National Environmental Policy Act
<b>EFH</b>	essential fish habitat	<b>NMFS</b>	National Marine Fisheries Service
<b>F</b>	a measure of the instantaneous rate of fishing mortality	<b>NOAA</b>	National Oceanic and Atmospheric Administration
<b>F<sub>30%SPR</sub></b>	fishing mortality that will produce a static SPR = 30%	<b>OFL</b>	overfishing limit
<b>F<sub>CURR</sub></b>	the current instantaneous rate of fishing mortality	<b>OY</b>	optimum yield
<b>F<sub>MSY</sub></b>	the rate of fishing mortality expected to achieve MSY under equilibrium conditions and a corresponding biomass of $B_{MSY}$	<b>PSE</b>	proportional standard error
<b>F<sub>OY</sub></b>	the rate of fishing mortality expected to achieve OY under equilibrium conditions and a corresponding biomass of $B_{OY}$	<b>RIR</b>	regulatory impact review
<b>FEIS</b>	final environmental impact statement	<b>SAFMC</b>	South Atlantic Fishery Management Council
		<b>SEDAR</b>	Southeast Data, Assessment, and Review
		<b>SEFSC</b>	Southeast Fisheries Science Center
		<b>SERO</b>	Southeast Regional Office
		<b>SIA</b>	social impact assessment
		<b>SPR</b>	spawning potential ratio
		<b>SSC</b>	Scientific and Statistical Committee

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# Chapter 1. Introduction

## 1.1 What is Proposed in Regulatory Amendment 32?

Regulatory Amendment 32 to the Fishery Management Plan (FMP) for the Snapper Grouper Fishery of the South Atlantic Region (Regulatory Amendment 32) proposes to revise accountability measures (AM) for yellowtail snapper to reduce the probability of in-season closures.

## 1.2 Who is Proposing the Management Measures?

The South Atlantic Fishery Management Council (Council) is proposing these management measures. The Council recommends management measures and sends them to the National Marine Fisheries Service (NMFS) who implements the actions in the framework amendment through the development of regulations on behalf of the Secretary of Commerce. NMFS is a line office in the National Oceanic and Atmospheric Administration within the Department of Commerce.

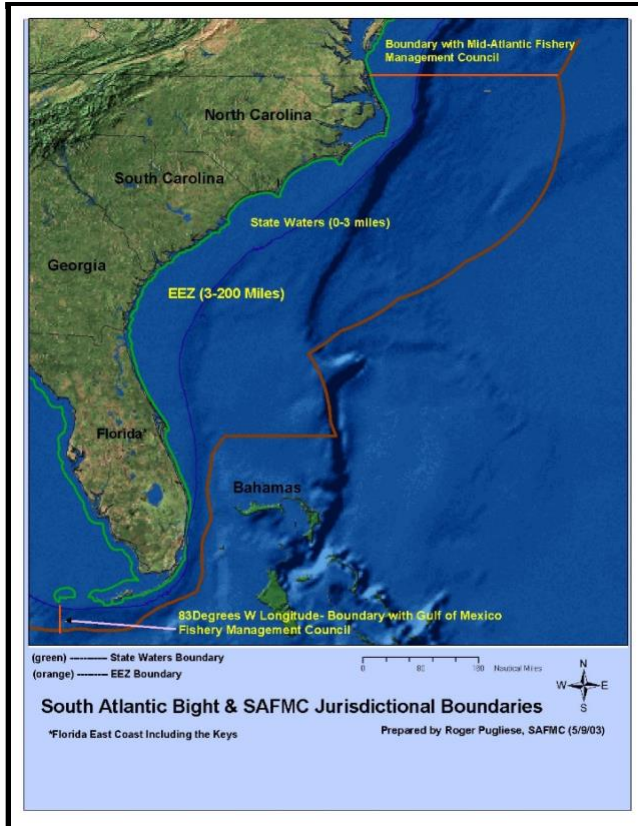
The Council will make versions of the document available during public hearings and during Council meetings while the Council is developing the amendment. The final amendment will be made available during the public comment period on the proposed rule. All versions of the document will be available on the Council's or NMFS's websites.

## 1.3 Where is the Project Located?

The federal snapper grouper fishery is located off the eastern United States (Atlantic) in the 3-200 nautical miles U.S. exclusive economic zone (EEZ) (**Figure 1.3.1**).

### *South Atlantic Fishery Management Council*

- Responsible for conservation and management of fish stocks in the South Atlantic Region
- Consists of 13 voting members: 8 appointed by the Secretary of Commerce, 1 representative from each of the 4 South Atlantic states, the Southeast Regional Director of NMFS and 4 non-voting members
- Responsible for developing fishery management plans and amendments under the Magnuson-Stevens Act; recommends actions to NMFS for implementation
- Management area is from 3 to 200 miles off the coasts of North Carolina, South Carolina, Georgia, and east Florida through Key West with the exception of Mackerel which is from New York to Florida, and Dolphin-Wahoo, which is from Maine to Florida



**Figure 1.3.1.** Jurisdictional boundaries of the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic Region (Snapper Grouper FMP) as managed by the South Atlantic Council.

## 1.4 Why is the Council Considering this Action?

### Purpose for Action

The purpose of this framework amendment is to revise accountability measures to minimize the probability of in-season closures for yellowtail snapper.

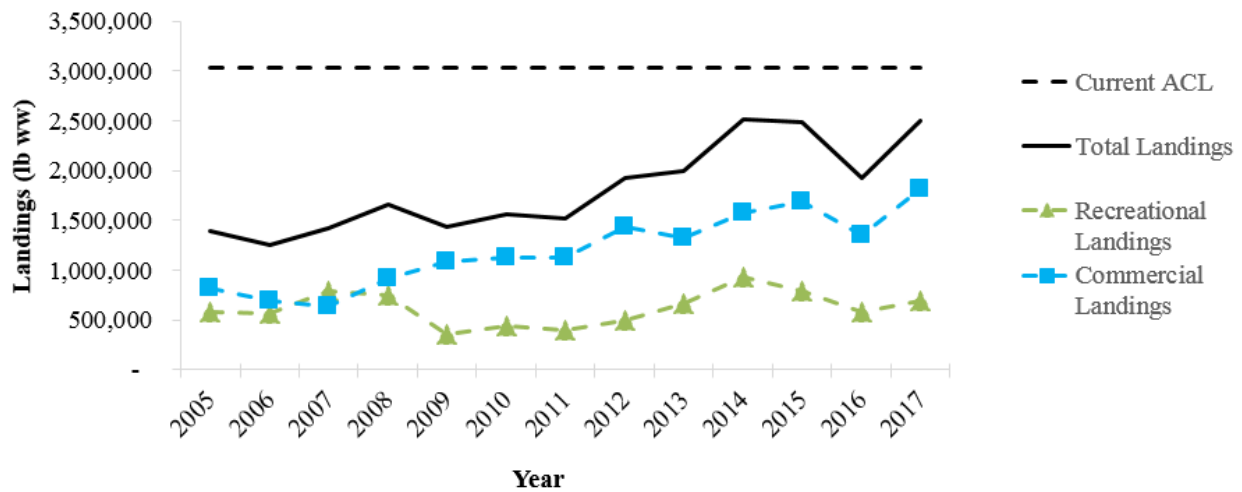
### Need for Action

The need for the framework amendment is to achieve optimum yield for yellowtail snapper while minimizing, to the extent possible, adverse social and economic effects due to in-season closures.

Total landings of yellowtail snapper have remained below the total annual catch limit (ACL) since 2012, when ACLs were first implemented for Council-managed species not undergoing overfishing through the Comprehensive ACL Amendment to the Snapper Grouper FMP (SAFMC 2011) (Figure 1.4.1, Table 1.4.1). However, inseason closures have occurred for the commercial sector in recent years (June 3, 2017, and June 5, 2018) due to the sector meeting its ACL, while the recreational sector has not harvested all of its ACL. The Council is considering



modifications to yellowtail snapper AMs to minimize the probability of in-season closures and consequent negative socio-economic impacts.



**Figure 1.4.1.** Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic, 2005-2017.

Note: The fishing season for yellowtail snapper was modified in Regulatory Amendment 25 to the Snapper Grouper FMP (Regulatory Amendment 25), which took effect on August 12, 2016. Total landings are indicated by the solid black line and current total ACL is depicted by the dashed line. Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).

**Table 1.4.1.** Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic from 2012 through 2017.

Fishing Year	Rec. Landings (lbs ww)	Com. Landings (lbs ww)	Total Landings (lbs ww)	Total ACL (lbs ww)	% Total ACL	% Rec ACL	% Com ACL
2012	493,409	1,439,585	1,932,994	2,627,796	74%	48%	90%
2013	666,027	1,328,968	1,994,995	3,037,500	66%	46%	83%
2014	933,760	1,575,955	2,509,715	3,037,500	83%	65%	99%
2015	791,157	1,691,804	2,482,961	3,037,500	82%	55%	106% <sup>a</sup>
2016	576,578	1,353,176	1,929,754	3,037,500	NA*	NA*	NA*
2016/ 2017	672,464	1,810,770	2,483,234	3,037,500	82%	47%	114% <sup>b</sup>

\*The fishing season for yellowtail snapper was modified in Regulatory Amendment 25, which took effect on August 12, 2016. For this reason, 2016 includes January through August 12, 2016 landings and 2016/17 fishing season landings are provided separately.

<sup>a</sup>In-season closure for commercial sector from October 31, 2015 to December 31, 2015.

<sup>b</sup>In-season closure for commercial sector from June 3, 2017 to July 31, 2017.

Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).

## 1.5 What are the Options Considered by the Council?

**Current Regulations:** The current commercial and recreational in-season AMs are to close the respective sector if that sector's ACL is met or is projected to be met.

**Council Option 2.** An in-season closure will not occur for either sector until the total ACL is met or is projected to be met. Close both sectors when the total ACL is met or is projected to be met.

**Preferred Council Option 3.** An in-season closure will occur for the commercial sector if the commercial ACL has been met and the total catch (commercial and recreational) reaches, or is projected to reach, 80% of the total ACL.

**Council Option 4.** An in-season closure will occur for the commercial sector if the commercial ACL has been met and the total catch (commercial and recreational) reaches, or is projected to reach, 70% of the total ACL.

The proposed adjustments to the AMs would influence the projected closure dates of the commercial sector for some options. The in-season closure dates of the commercial sector vary by option (**Table 1.5.1**). **Council Option 4** is not predicted to influence the commercial closure date, **Preferred Council Option 3** is expected to extend the commercial season by 29 days, while **Council Option 2** is predicted to prevent an in-season closure of the commercial sector. In-season closures for the recreational sector are not expected under any of the options.

**Table 1.5.1.** Projected commercial and recreational closure dates under Council proposed options for yellowtail snapper in Regulatory Amendment 32.

Option	Projected Recreational Closure Date	Projected Commercial Closure Date
Current Regulations	No closure	May 11
Council Option 2	No closure	No closure
<b>Preferred Council Option 3</b>	<b>No closure</b>	<b>June 9</b>
Council Option 4	No closure	May 11*

\*70% of the total ACL is met before the commercial sector is expected to reach its sector ACL (1,596,510 lb ww) due to the combined landings of both the commercial and recreational sectors, and therefore, the commercial sector is projected to close when the commercial ACL is reached as projected under the current regulations.

The proposed adjustments to the AMs would also influence the projected commercial and total landings. The projected commercial and total landings are greatest under **Council Option 2**, since the option allows the greatest amount of fishing by the commercial sector before triggering a closure (100% of the total ACL) (**Table 1.5.2**). The projected commercial landings decrease under **Preferred Council Option 3** (closure at 80% of the total ACL), then further with the **Current Regulations** and **Council Option 4** (closure at 70% of the total ACL). Landings for the recreational sector are not projected to change in comparison to those anticipated under

the **Current Regulations**, and the total ACL is not expected to be reached under any of the options.

**Table 1.5.2.** Projected landings [pounds (lbs) whole weight (ww)] of yellowtail snapper under Council proposed options in Regulatory Amendment 32. The current recreational ACL is 1,440,990 lbs ww; current commercial ACL is 1,596,510 lbs ww. The total ACL is 3,037,500 lbs ww. Current fishing year for yellowtail snapper is August 1 through July 31 for both the recreational and commercial sectors.

Alternative	Projected Recreational Landings	Projected Commercial Landings	Projected Total Landings	% Total ACL Landed
Current Regulations	738,194	1,596,510	2,334,704	77%
Council Option 2	738,194	2,102,729	2,840,923	94%
<b>Preferred Council Option 3 (80% of Total ACL)</b>	<b>738,194</b>	<b>1,810,256</b>	<b>2,548,450</b>	<b>84%</b>
Council Option 4 (70% of Total ACL)	738,194	1,596,510	2,334,704	77%

## 1.6 What are the Biological Effects of the Options Considered by the Council?

The proposed adjustments to the AMs would influence the projected commercial and total landings (**Table 1.6.1**). In general, adverse effects to the yellowtail snapper stock increase as the projected landings increase. Therefore, adverse effects increase from **Current Regulations** and **Council Option 4** (lowest), to **Preferred Council Option 3**, to **Council Option 2** (highest). However, since ACLs and AMs are in place and the total ACL is not projected to be met under any of the options, NMFS and the Council do not expect the proposed action to create an overfishing or an overfished condition and jeopardize the sustainability of the stock.

**Table 1.6.1.** Projected landings [pounds (lbs) whole weight (ww)] of yellowtail snapper under Council proposed options in Regulatory Amendment 32 and projected closure dates for the commercial sector.

<b>Option</b>	<b>Projected Commercial Closure Date</b>	<b>Projected Commercial Landings</b>	<b>Projected Total Landings</b>
Current Regulations	May 11	1,596,510	2,334,704
Council Option 2	No closure	2,102,729	2,840,923
<b>Preferred Council Option 3</b>	<b>June 9</b>	<b>1,810,256</b>	<b>2,548,450</b>
Council Option 4	May11	1,596,510	2,334,704

The start date for the yellowtail snapper fishing year was changed from January 1 to August 1 (Regulatory Amendment 25; SAFMC 2015). Due to the August 1 start date, the recent June in-season closures of the commercial sector have closed the sector during the peak of the spawning season in southeast Florida, where the bulk of the yellowtail snapper harvest takes place. In southeast Florida, spawning occurs during spring and summer with peak spawning from May through July (Grimes 1987, Muller et al. 2003). In general, the earlier the predicted closure, the greater the beneficial effects to the yellowtail snapper stock by closing the commercial sector when the fish are spawning. Therefore, biological benefits could be highest under **Current Regulations** and **Council Option 4**, followed by **Preferred Council Option 3** and then **Council Option 2**.

### *Life History*

The reader is referred to Regulatory Amendment 25 to the Snapper Grouper FMP (SAFMC 2015) for more details on the life history for yellowtail snapper. In summary, yellowtail snapper, *Ocyurus chrysurus*, occurs in the western Atlantic, ranging from Massachusetts to southeastern Brazil, including the Gulf of Mexico and Caribbean Sea (Fisher 1979, Kaschner et al. 2010), but is most common in the Bahamas, off south Florida, and throughout the Caribbean (Manooch and Drennon 1987). Most U.S. landings come from the Florida Keys and southeastern Florida. The yellowtail snapper inhabits waters as deep as 180 m (590 ft), and usually is found well above the bottom (Allen 1985). Muller et al. (2003) state that adults typically inhabit sandy areas near offshore reefs at depths ranging from 10 to 70 m (33-230 ft). Maximum age is 23 years (O'Hop et al. 2012), and natural mortality is 0.194 (SEDAR 3 2003). Yellowtail snapper are gonochoristic (individuals remain the same sex throughout their lifetime) and are multiple (batch) spawners with indeterminate fecundity (Barbieri and Colvocoresses 2003). Spawning occurs over a protracted period and peaks at different times in different areas. In southeast Florida, spawning occurs during spring and summer with peak spawning in May-July (Grimes 1987, Muller et al. 2003).

### *Stock Status*

In 2012, the Florida Fish and Wildlife Research Institute conducted a yellowtail snapper benchmark stock assessment (O'Hop et al. 2012). Results from the assessment indicate that the yellowtail snapper stock is neither overfished nor experiencing overfishing. Fishery-dependent data included commercial logbooks, Marine Recreational Fishery Statistics Survey (MRFSS),

and the headboat survey. The MRFSS data were used in that assessment rather than the newer Marine Recreational Information Program (MRIP) data to maintain consistency with older data that had not yet been converted from MRFSS to MRIP. Fishery-independent data came from the NMFS/University of Miami Reef Visual Census. The next stock assessment for yellowtail snapper started in 2018 and is expected to be completed in 2019. It is assumed that newly calibrated MRIP data will be utilized in the new stock assessment.

For more details, the reader is referred to Chapter 3 of Regulatory Amendment 25 (SAFMC 2015).

#### *Bycatch, Discards, and Other Affected Species*

The reader is referred to the Bycatch Practicability Analysis from Regulatory Amendment 25 (Appendix E of Regulatory Amendment 25; SAFMC 2015) for more details. In summary, species that co-occur with yellowtail snapper are: gray snapper, lane snapper, cubera snapper, and mutton snapper. For details on the life histories and ecology of co-occurring species, the reader is referred to the South Atlantic EcoSpecies Database<sup>1</sup>. Release mortality for yellowtail snapper is 10% (O’Hop et al. 2012). **Preferred Council Option 3** would be expected to extend the length of the commercial fishing season for yellowtail snapper by 29 days. Options that increase the length of the fishing season for yellowtail snapper could reduce discards of the species since fishermen would not have to discard the species when targeting co-occurring species.

#### *Effects to Protected Species*

The reader is referred to Chapter 3 of Amendment 43 to the Snapper Grouper FMP (SAFMC 2017) for more details on listed species protected under the Marine Mammal Protection Act or under the Endangered Species Act (ESA). In summary, NMFS concluded in a December 1, 2016, ESA biological opinion (BiOp) that the continued authorization of the snapper grouper fishery is not likely to jeopardize the continued existence of the North Atlantic right whale, loggerhead sea turtle Northwest Atlantic distinct population segment (DPS), leatherback sea turtle, Kemp’s ridley sea turtle, green sea turtle North Atlantic DPS, green sea turtle South Atlantic DPS, hawksbill sea turtle, smalltooth sawfish U.S. DPS, or Nassau grouper, or to destroy or adversely modify critical habitat. NMFS also concluded that the continued authorization of the snapper grouper fishery is not likely to adversely affect any other ESA-listed species or designated critical habitat in the South Atlantic Region. Since publication of the 2016 BiOp, NMFS published a final rule to designate critical habitat and two additional final listing rules.

On August 18, 2017, NMFS published a final rule to designate critical habitat for the threatened Gulf of Maine DPS of Atlantic sturgeon, the endangered New York Bight DPS of Atlantic sturgeon, the endangered Chesapeake Bay DPS of Atlantic sturgeon, the endangered Carolina DPS of Atlantic sturgeon and the endangered South Atlantic DPS of Atlantic sturgeon

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<sup>1</sup> <http://saecospecies.azurewebsites.net>

pursuant to the ESA. However, because no critical habitat was designated for any of the five Atlantic sturgeon DPSs in marine or nearshore estuarine waters, the action in Regulatory Amendment 32 would have no effect on this newly listed critical habitat. On January 22, 2018, NMFS listed the giant manta ray as threatened under the ESA, effective February 21, 2018. On January 30, 2018, NMFS listed the oceanic whitetip shark as threatened under the ESA, effective March 1, 2018. Giant manta rays and oceanic whitetip sharks are found in the South Atlantic and may be affected by the subject fishery via incidental capture in snapper grouper fishing gear.

On June 11, 2018, NMFS reinitiated ESA section 7 consultation on the continued authorization of the South Atlantic snapper grouper fishery under the Magnuson-Stevens Fishery Conservation and Management Act to address the listings of giant manta ray and oceanic whitetip sharks under the ESA. In a June 11, 2018, memorandum, NMFS developed ESA sections 7(a)(2) and 7(d) analyses that considered allowing the snapper grouper fishery to continue during the reinitiation period. As a result of those analyses, NMFS has determined that allowing the snapper grouper fishery to continue during the reinitiation period is not likely to jeopardize any protected species, nor does it constitute an irreversible or irretrievable commitment of resources.

#### *Effects to Essential Fish Habitat (EFH)*

The reader is referred to Chapter 3 and Appendix I of Regulatory Amendment 25 (SAFMC 2015) for more details on EFH and ecosystem-based management. There are no changes to fishing gear in the options proposed in Regulatory Amendment 32 and are therefore, not expected to adversely affect essential fish habitat.

### **1.7 What are the Economic Effects of the Options Considered by the South Atlantic Council?**

#### *Description of the Commercial Fishery*

Annual commercial landings of yellowtail snapper in the South Atlantic ranged from approximately 946,000 pounds gutted weight (lbs gw) to 1,406,000 lbs gw and averaged 1,194,849 lbs gw from 2013 through 2017. Dockside revenues from those landings ranged from about \$3,357,000 to \$4,771,000 and averaged \$4,139,413 (2017 dollars). The average dockside price during those five years was \$3.47 per lb gw (2017 dollars) and an annual average of 242 vessels took 4,060 commercial trips landing yellowtail snapper. Average annual gross ex-vessel revenue from yellowtail snapper landings represented approximately 81% of total dockside revenue from trips that landed the species from 2013 through 2017 (**Table 1.7.1** and **Table 1.7.2**).

**Table 1.7.1.** Number of vessels, number of trips, and landings by year for vessels that landed yellowtail snapper from the South Atlantic, 2013-2017.

Year	Number of vessels that caught yellowtail snapper	Number of trips that caught yellowtail snapper	Yellowtail snapper landings (lbs gw)	Other species' landings jointly caught with yellowtail snapper (lbs gw)	Number of SATL trips that only caught other species	Other species' landings on SATL trips without yellowtail snapper (lbs gw)	All species landings on Gulf trips (lbs gw)
2013	235	3,560	1,014,668	372,169	3,218	1,617,536	376,899
2014	251	4,230	945,483	414,855	4,798	2,640,850	526,998
2015	249	4,015	1,271,176	338,733	3,818	1,997,626	423,687
2016	261	4,630	1,336,638	368,034	3,925	2,147,441	345,388
2017	215	3,867	1,406,278	269,029	3,352	1,716,614	582,318
Average	242	4,060	1,194,849	352,564	3,822	2,024,013	451,058

Source: SEFSC Socioeconomic Panel (Version 7).

**Table 1.7.2.** Number of vessels and annual gross revenue by year for vessels that landed yellowtail snapper from the South Atlantic, 2013-2017 (2017 dollars)\*.

Year	Number of vessels that caught yellowtail snapper	Gross ex-vessel revenue from yellowtail snapper	Gross ex-vessel revenue from 'other species' jointly caught with yellowtail snapper	Gross ex-vessel revenue from 'other species' caught on SATL trips without yellowtail snapper	Gross ex-vessel revenue from all species caught on Gulf trips	Total gross ex-vessel revenue	Average total gross ex-vessel revenue per vessel
2013	235	\$3,410,557	\$999,815	\$5,382,029	\$1,083,023	\$10,875,424	\$46,278
2014	251	\$3,357,438	\$1,153,133	\$8,421,085	\$1,750,732	\$14,682,388	\$58,496
2015	249	\$4,466,415	\$937,745	\$5,961,984	\$1,314,108	\$12,680,252	\$50,925
2016	261	\$4,691,670	\$1,045,801	\$6,784,866	\$1,008,475	\$13,530,812	\$51,842
2017	215	\$4,770,986	\$676,211	\$4,890,410	\$1,725,533	\$12,063,140	\$56,108
Average	242	\$4,139,413	\$962,541	\$6,288,075	\$1,376,374	\$12,766,403	\$52,730

Source: SEFSC Socioeconomic Panel (Version 7).

\* Inflation adjustments in the tables were made using the annual gross domestic product implicit price deflator provided by the U.S. Bureau of Economic Analysis.

From 2013 through 2017, 127 dealers purchased South Atlantic yellowtail snapper landings on average each year. Over this timeframe, their average annual purchases of South Atlantic yellowtail snapper landings were \$35,650 per dealer, their average annual purchases of all South Atlantic seafood landings were \$180,268, and their average annual purchases of all seafood (including purchases of landings from Gulf of Mexico waters) were \$256,742 per dealer (2017 dollars). Thus, South Atlantic yellowtail snapper purchases represented almost 14% of their total

seafood purchases, with the remaining purchases coming from other species harvested from the South Atlantic (56%) and Gulf of Mexico (30%) (**Table 1.7.3**).

The economic characteristics of South Atlantic yellowtail snapper dealers changed significantly after 2014 based on the statistics in **Table 1.7.3**. Specifically, the number of dealers decreased by 46% from 2014 to 2015, and remained at a much lower level in subsequent years. Conversely, average annual purchases of South Atlantic yellowtail snapper increased by more than 146% from 2014 to 2015 and remained at a much higher level in subsequent years. Though the increases were not as large, average annual purchases of all South Atlantic commercial landings and all commercial landings (seafood purchases) also increased, specifically by 85% and 75%, respectively. South Atlantic yellowtail snapper landings increased somewhat significantly in 2015 and there is no regulatory limit on the number of dealers that can purchase yellowtail snapper, so this finding of significant consolidation in the dealer sector is somewhat unexpected. However, similar consolidation for all South Atlantic snapper grouper dealers also occurred during this time according to estimates in Snapper Grouper Regulatory Amendment 27 (SAFMC under development). The decline in the number of dealers in both cases may be due to implementation of the dealer electronic reporting requirement in August 2014. Specifically, some entities that previously operated as dealers may have decided to exit that sector of the industry because of the costs associated with electronic reporting, particularly individual commercial fishermen who had previously operated as their own dealers. More research on the specific entities that left or remained in the dealer sector would be necessary to verify this hypothesis.

**Table 1.7.3.** Economic characteristics of South Atlantic yellowtail snapper dealers, 2013-2017 (2017 dollars).

Year	Number of dealers	Average annual SA yellowtail snapper purchases	Average annual South Atlantic purchases	Average annual Gulf of Mexico purchases	Average annual seafood purchases
2013	144	\$23,684	\$139,169	\$51,515	\$190,685
2014	187	\$17,936	\$118,511	\$62,305	\$180,816
2015	101	\$44,180	\$219,103	\$97,788	\$316,891
2016	105	\$44,738	\$223,864	\$75,172	\$299,036
2017	100	\$47,710	\$200,691	\$95,591	\$296,282
Average	127	\$35,650	\$180,268	\$76,474	\$256,742

Source: SEFSC Socioeconomic Panel (Version 7).

### *Economic Effects of Proposed Management Changes*

In general, revising AMs to allow more harvest can result in positive short term, direct economic effects. For the recreational sector, based on the analysis provided in **Table 1.5.1**, harvest levels and rates are not expected to change. Therefore, no direct or indirect economic effects are anticipated for this sector.



With an increasing trend in yellowtail snapper commercial harvest, the commercial sector has exceeded its sector ACL in recent years, triggering a harvest closure for the remainder of the fishing year as part of the current commercial AMs for yellowtail snapper. As such, it is assumed that the commercial sector would be able to fully harvest beyond its ACL for the foreseeable future if provided the opportunity to do so. **Council Option 2** and **Preferred Council Option 3** are projected to increase commercial landings of yellowtail snapper, while commercial landings are projected to remain unchanged under **Council Option 4** and the **Current Regulations (Table 1.5.2)**. The estimated direct economic effects of each option on commercial fishing vessels in comparison to current regulations are provided in **Tables 1.7.4** and **1.7.5**. In computing these values, commercial landings in pounds whole weight (lbs ww) provided in **Table 1.5.1** were converted to lbs gw using a conversion factor of 1.11. Additionally, to calculate the expected change in annual gross revenue based on the difference between baseline landings and projected landings, the appropriate ex-vessel price associated with the projected landings had to be determined.

**Table 1.7.4.** Estimated change in annual commercial landings (lbs gw), gross revenue, net cash flow, and economic profit (2017 dollars) from commercial landings of yellowtail snapper for options considered in Regulatory Amendment 32.

<b>Council Option</b>	<b>Estimated change in annual commercial landings</b>	<b>Estimated change in annual gross revenue</b>	<b>Estimated change in annual net cash flow</b>	<b>Estimated change in annual economic profit</b>	<b>Economic rank</b>
Current Regulations	0	\$0	\$0	\$0	3T*
Option 2	456,053	\$957,712	\$348,607	\$158,980	1
<b>Preferred Option 3</b>	<b>192,564</b>	<b>\$556,510</b>	<b>\$202,570</b>	<b>\$92,381</b>	<b>2</b>
Option 4	0	\$0	\$0	\$0	3T*

\*"T" stands for "tied".

**Table 1.7.5.** Estimated change in average annual commercial landings (lbs gw), gross revenue, net cash flow, and economic profit (2017 dollars) per vessel from commercial landings of yellowtail snapper for options considered in Regulatory Amendment 32.

<b>Council Option</b>	<b>Estimated average change in annual commercial landings per vessel</b>	<b>Estimated change in average annual gross revenue per vessel</b>	<b>Estimated change in average annual net cash flow per vessel</b>	<b>Estimated change in average annual economic profit per vessel</b>	<b>Economic rank</b>
Current Regulations	0	\$0	\$0	\$0	3T*
Option 2	1,885	\$3,957	\$1,441	\$657	1
<b>Preferred Option 3</b>	<b>796</b>	<b>\$2,300</b>	<b>\$837</b>	<b>\$382</b>	<b>2</b>
Option 4	0	\$0	\$0	\$0	3T*

\*"T" stands for "tied".

Unlike most snapper grouper species, the market for yellowtail snapper is thought to be highly localized. On the supply side, the vast majority of production is in Florida and particular south Florida, and imports are not generally a source of comparable product. Also, yellowtail snapper are mostly sold as whole fish and have a relatively short shelf life, which leads to the local nature of the market on the demand side (i.e., these fish are typically not being shipped to other major markets in and outside of the U.S.). As a result, changes in landings significantly affect ex-vessel prices. Based on a model using monthly South Atlantic landings and ex-vessel price data for yellowtail snapper, it was determined that for every 1,000 lbs gw increase in average landings per month, ex-vessel price is expected to decrease by \$0.036 per lb gw<sup>2</sup>. Average landings per month are expected to increase by 38,004 lbs gw and 16,047 lbs gw under **Council Option 2** and **Preferred Council Option 3**, respectively. Although ex-vessel price under the **Current Regulations** and **Council Option 4** would not be expected to change, the ex-vessel price for the additional landings is expected to decrease by \$1.37 to \$2.10/lb gw under **Council Option 2** and by \$0.58 to \$2.89/lb gw under **Preferred Council Option 3**. These prices were applied to the expected change in annual landings per year to estimate the expected change in gross revenue per year. The estimated change in annual gross revenue for commercial vessels landings of yellowtail snapper ranges from \$957,712 under **Council Option 2** to \$0 under **Council Option 4** and the **Current Regulations** (2017 dollars). For **Preferred Council Option 3**, the estimated change in annual gross revenue is \$556,510 (2017 dollars) in comparison to the current regulation (**Table 1.7.4**).

The economic effects on individual vessel owners from **Council Options 2** through **4** would depend on each owner's profit maximization strategy, their dependence on yellowtail snapper, their seasonal fishing behavior, and their ability to adapt to the changing regulations. Some vessel owners may benefit from additional yellowtail snapper landings, while others may not. These types of individual vessel level effects cannot be determined with available models. Overall, approximately 242 vessels harvested yellowtail snapper in 4,171 trips on average each year from 2015 through 2017. The average annual gross revenues for these vessels was \$52,958 (2017 dollars) per vessel during this time (**Table 1.7.1** and **1.7.2**). Based on this information, the options being considered are expected to result in an average increase in annual gross revenue per vessel of \$0 under **Council Option 4** and the **Current Regulations** to \$3,957 under **Council Option 2**, with an increase of \$2,300 under **Preferred Council Option 3** (2017 dollars) (**Table 1.7.5**). In terms of percent of gross revenue per vessel, the options being considered are estimated to result in an increase of 0% under **Council Option 4** and the **Current Regulations** to 7.5% under **Council Option 2** in annual gross revenue, with an increase of 4.3% under **Preferred Council Option 3**.

However, these expected increases in gross revenue would not result in an equivalent increase in profits. In order to harvest these additional landings, vessels would need to take additional trips, which is consistent with the expectation of a longer season. Each additional trip would lead to additional trip costs as well as additional revenue from the landings. Fixed costs

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<sup>2</sup> A generalized linear regression model was used to estimate the relationship between landings and ex-vessel prices. The model included dummy variables for month and year to control for seasonality and changes in macroeconomic conditions over time. The landings variable, yearly dummy variables, and monthly dummy variables for January, October, and November were statistically significant and the R<sup>2</sup> for the model was 0.821, which is relatively high for fisheries economics research.

such as insurance and depreciation are not expected to change as they are not dependent on the number of trips. Based on 2015 through 2017 commercial effort data, **Council Option 2** is expected to result in an additional 1,551 trips per year, or about 6.4 trips per vessel on average, while **Preferred Council Option 3** is expected to result in an additional 655 trips per year, or about 2.7 trip per vessel on average.

According to Overstreet, Perruso, and Liese (2018), from 2014 through 2016, “trip net cash flow” from yellowtail snapper trips was approximately 36.4% of the gross revenue on those trips, while “trip net revenue” was approximately 16.6% of the gross revenue from these trips.<sup>3</sup> “Trip net cash flow” represents the additional flow of money to the business from taking a trip, while “trip net revenue” represents economic profit at the trip level and thus is the best measure of net economic benefits. In aggregate, the estimated annual change in net revenue and economic profit is expected to remain the same under the **Current Regulations** as well as **Council Option 4** and increase by approximately \$349,000 and \$159,000 under **Council Option 2** (2017 dollars). Under **Preferred Council Option 3**, the estimated annual change in net revenue and economic profit is expected to increase by approximately \$203,000 and \$92,000 (2017 dollars) (**Table 1.7.4**). On average, trip net cash flow per vessel and economic profit per vessel are expected to increase by \$1,441 and \$657, respectively, under **Council Option 2**, while they are expected to increase \$837 and \$382 under **Preferred Council Option 3** (2017 dollars)(**Table 1.7.5**). Thus, in terms of the anticipated direct net economic benefits to the industry, **Council Option 2** is expected to generate the most net economic benefits followed by **Preferred Council Option 3**, and **Council Option 4** being tied with the **Current Regulations**.

In addition to the increase in revenues described above, the commercial sector may also experience indirect effects through a prolonged season for yellowtail snapper under **Council Option 2** and **Preferred Council Option 3** which would be beneficial for both those who harvest yellowtail snapper and seafood dealers, as a longer season would provide a source of potential revenue for commercial participants during trips occurring later in the fishing year and additional product for seafood dealers to sell to and maintain customers. Based on the projected closure dates found in **Table 1.5.2**, the estimated change in the commercial season for yellowtail snapper in comparison to current regulations ranges from an increase of 81 days under **Council Option 2** to 0 days under **Council Option 4** and the current regulations. **Preferred Council Option 3** is projected to increase the commercial harvest season for yellowtail snapper by 29 days (**Table 1.7.6**).

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<sup>3</sup> Trip net cash flow is gross revenue minus the costs for fuel, bait, ice, groceries, miscellaneous, and hired crew. Trip net revenue is gross revenue minus the costs for fuel, bait, ice, groceries, miscellaneous, hired crew, as well as the opportunity cost of the owner’s time as captain.

**Table 1.7.6.** Estimated change in the commercial harvest season for yellowtail snapper for options considered in Regulatory Amendment 32.

<b>Council option</b>	<b>Estimated closure date for commercial harvest</b>	<b>Change in days that commercial harvest is open</b>
Current Regulation	May 11	0
Council Option 2	No Closure	81
<b>Preferred Council Option 3</b>	<b>June 9</b>	<b>29</b>
Council Option 4	May 11	0

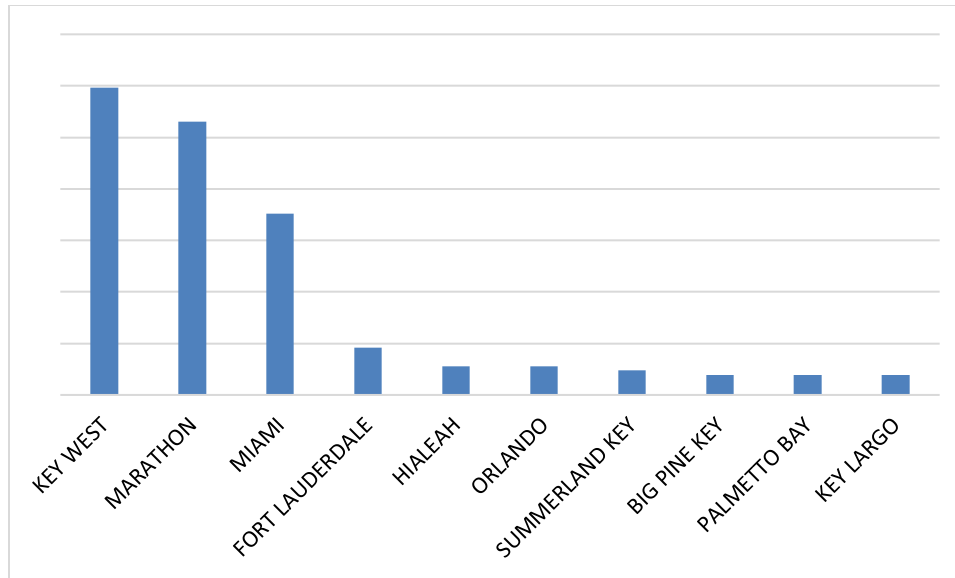
Estimates of net revenues or economic profit are not available for South Atlantic yellowtail snapper dealers. Therefore, it is not possible to estimate the effect of changes in purchases on their profits. However, in general, dealers are indirectly affected whenever gross revenues to commercial fishing vessels are expected to change (e.g., increases in gross revenues are expected to indirectly benefit dealers and vice versa). Thus, the ranking of economic benefits to dealers would be the same as for commercial fishing vessels. More specifically, based on data for 2015-2017, each of the approximate 102 dealers would be expected to see an increase in their average annual purchases of yellowtail snapper by \$0 under **Council Option 4** and the **Current Regulations** to \$9,384 (about 3% of their average annual seafood purchases) under **Council Option 2**, with an increase of \$5,456 (about 1.8% of their average annual seafood purchases) under **Preferred Council Option 3** (2017 dollars). Such changes would likely benefit all dealers, but particularly small dealers and dealers operating under relatively small profit margins.

## 1.8 What are the Social Effects of the Options Considered by the South Atlantic Council?

The majority of yellowtail snapper occur off the coast of Florida and Key West, Florida is the top community in terms of landings and value of commercial yellowtail snapper. As such, Key West would likely be affected by revisions to yellowtail snapper AMs. While Key West outdistances the other Florida communities, Miami and Marathon are also important communities in terms of regional quotient<sup>4</sup> of yellowtail snapper (**Figure 1.8.1**). Other states have landings of yellowtail snapper, but their ranks are negligible in terms of their regional quotient.

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<sup>4</sup> The regional quotient measures the relative importance of a given species or species group across all communities in the region and represents the proportional distribution of commercial landings.



**Figure 1.8.1.** Yellowtail snapper pounds regional quotient for South Atlantic fishing communities, 2016. Source: NMFS SERO ALS Database (with dealer address) (2018).

In-season AMs can result in direct and indirect social effects because, when triggered, they restrict harvest in the current season. While the negative effects are usually short-term, they may at times induce other indirect effects through changes in fishing behavior or business operations that could have long-term social effects. Restrictions usually translate into reduced opportunity for harvest, which in turn can change fishing behaviors, such as switching to alternative species if the opportunity exists. That behavior can increase pressure on other stocks and/or amplify conflict. If there are no alternative fishing opportunities then loss of income may occur, which can have a negative effect on the economy for fishing communities affected. If these economic consequences are substantial, increased unemployment and other disruptions to community dynamics may occur, especially for vulnerable communities. While these negative effects are usually short lived, they may at times induce other indirect effects through the loss of fishing infrastructure, which would have a long-term negative effect on fishermen participating in the fishery experiencing the closure as well as other fisheries prevalent in the community. In general, the most beneficial in-season AMs in the long term are those that prevent overharvest from occurring, ensuring a healthy stock and continued sustainable fishing opportunities. However, some flexibility in how these AMs are triggered can help to mitigate the negative short-term impacts on fishermen and associated businesses and communities.

Maintaining the current commercial yellowtail snapper AM regulations would be expected to result in negative effects on communities in Florida resulting from continued in-season closures of the commercial sector. More flexibility in when an in-season closure would occur, as proposed under **Council Option 2, Preferred Council Option 3, and Council Option 4** would be expected to be more beneficial to fishing communities. This flexibility is particularly important for fishing communities in southern Florida working to recover and rebuild following the 2017 hurricane season. For the recreational sector of the yellowtail snapper portion of the snapper grouper fishery, maintaining the AMs under current regulations would not be expected

to result in additional negative effects as the recreational ACL has not been met in recent years (**Table 1.5.1**).

**Council Option 2** is not projected to result in an in-season closure and would be most beneficial to commercial fishermen, followed by **Preferred Council Option 3**, **Council Option 4**, and **Current Regulations** with projected closure dates of June 9<sup>th</sup> (**Preferred Council Option 3**) and May 11<sup>th</sup> (**Council Option 4** and **Current Regulations**) (**Table 1.5.2**).

## 1.9 Council Conclusions

### *Snapper Grouper Advisory Panel (AP) Comments and Recommendations*

The Snapper Grouper AP discussed Regulatory Amendment 32 during their October 17-19, 2018 meeting and offered the following:

AP members generally felt that the yellowtail snapper fishery is well managed and is a very important fishery both commercially and recreationally. The current fishing year (August-July) is working well for the commercial sector. In terms of marketability, the summer months are not the best as the price of yellowtail snapper typically diminishes substantially during this time.

Yellowtail snapper fishermen on the AP stated their recent preference to wait until after the stock assessment is completed to make any management changes. Although commercial catch rates for yellowtail snapper have ramped up in recent years, fishermen did not think that the catches will continue to increase very much. AP members mentioned intentional discarding of small yellowtail snapper in the summer months by some fishermen and suggested that an in-season closure could benefit the stock by reducing the length of time that this practice takes place. Additional support offered for taking no action at this time was to allow the recent changes in management to take hold and allow fishermen to adjust. AP members claimed that fishing businesses that were affected by the 2017 hurricanes have stabilized.

The AP approved the following motion regarding the amendment.

**MOTION:** RECOMMEND ALTERNATIVE 1 (NO ACTION) FOR YELLOWTAIL SNAPPER.

APPROVED BY AP (15 IN FAVOR, 2 ABSTENTIONS)

### **Council Options**

Current Regulations: The current commercial and recreational in-season accountability measures are to close the respective sector if that sector's annual catch limit is met or is projected to be met.

2. An in-season closure will not occur for either sector until the total annual catch limit is met or is projected to be met. Close both sectors when the total annual catch limit is met or is projected to be met.

3. **An in-season closure will occur for the commercial sector if the commercial annual catch limit has been met and the total catch (commercial and recreational) reaches, or is projected to reach, 80% of the total annual catch limit.**

4. An in-season closure will occur for the commercial sector if the commercial annual catch limit has been met and the total catch (commercial and recreational) reaches, or is projected to reach, 70% of the total annual catch limit.

Note: At the time, the “Council Options” were labeled as “Alternatives”. Alternative 1 (No Action) is the equivalent of the **Current Regulations**.

*Scientific and Statistical Committee (SSC) Comments and Recommendations*

The SSC discussed Regulatory Amendment 32 during their October 15-17, 2018 meeting. They had no comments or recommendations on this particular amendment.

*Public Comments and Recommendations*

Scoping hearings were conducted via webinar on August 15 and 16, 2018. Scoping materials (document and presentation) were made available on the Council’s website on August 1 and comments were accepted until August 17, 2018. No comments were submitted online and no written comments were received in the mail. Below is a summary of the comments provided.

One commenter from the Florida Keys stated that the fish house where she operates from had a devastating season last year due to hurricanes and had to shut down during June and July because there was no yellowtail snapper available. She clarified she was not speaking on the fish house’s behalf but simply relating facts to illustrate the financial hardship of businesses that depend on yellowtail snapper. She expressed support for **Council Option 2**.

One commenter from the Florida Keys expressed disappointment over the Councils (South Atlantic Council and Gulf of Mexico Fishery Management Council) pace at addressing the yellowtail snapper allocation issue. He stated the importance of the yellowtail snapper resource to the Florida Keys economy. He expressed support for combining the South Atlantic and Gulf of Mexico ACLs for yellowtail snapper but agreed that **Council Option 2** would work over the short term.

A third commenter from the Florida Keys also expressed support for **Council Option 2** to temporarily alleviate the issue of in-season closures.

*South Atlantic Council’s Rationale*

Yellowtail snapper commercial fishermen and commercial fishing representatives from South Florida and the Florida Keys requested that the Council consider changing yellowtail management to allow access to a portion of the ACL that has gone unharvested each year since implemented, largely due to the recreational sector underharvesting its portion of the ACL. During this time, the commercial sector has faced multiple in-season closures due to reaching the commercial sector ACL.

When discussing the possible changes to the management of the yellowtail snapper portion of the snapper grouper fishery, the South Atlantic Council acknowledged that such changes need to balance allowing the commercial sector to take advantage of ACL that typically goes unharvested while not inadvertently causing the recreational sector to face an in-season closure due to the total ACL being met as a result of increased commercial landings. Should recreational harvest increase unexpectedly and the sector not have full access to its allocation of the total

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ACL, an in-season closure for the sector would occur and create negative social and economic effects. With this in mind, **Preferred Council Option 3** was chosen as a measure to allow the commercial sector the opportunity to prolong the time period when commercial harvest of yellowtail snapper is open while providing a buffer to account for the potential of an unexpected increase in recreational harvest.

The South Atlantic Council has considered a possible joint amendment (Amendment 44 to the Snapper Grouper FMP) with the Gulf of Mexico Fishery Management Council to combine jurisdictional ACLs for yellowtail snapper as well as other measures that allow adaptive management of ACLs, revise sector allocations, and establish a commercial trip limit. The South Atlantic Council decided to postpone development of Amendment 44 pending expected revisions to recreational landings estimates as a result of changes to the MRIP and to potentially account for the results of the upcoming stock assessment for yellowtail snapper that is expected to be completed in 2019. However, the South Atlantic Council acknowledged the need for short-term measures to alleviate socio-economic impacts from recent in-season closures for the commercial sector and the 2017 hurricanes. Hence, the South Atlantic Council has developed Regulatory Amendment 32 to consider modifications to yellowtail snapper AMs that minimize the probability of in-season closures and consequent social and economic impacts. Longer-term measures will be considered when work on Amendment 44 resumes.

*How is this Action Addressing the Vision Blueprint for the Snapper Grouper Fishery?*

The Vision Blueprint for the Snapper Grouper Fishery (Vision Blueprint) was approved by the Council in December 2015 and is intended to inform management of the snapper grouper fishery through 2020. As such, the Vision Blueprint serves as a “living document” to help guide future management, guides the development of new amendments that address priority objectives and strategies, illustrates actions that could be developed through the regular amendment process, builds on stakeholder input, and how the Council envisions future management of the fishery. The Vision Blueprint is organized into four South Atlantic Snapper Grouper strategic goal areas: (1) Science; (2) Management; (3) Communication; and (4) Governance. Each goal area has a set of objectives, strategies, and actions.

The action in this framework amendment would address Objective 3: “Ensure that management decisions help maximize social and economic opportunity for all sectors” under the Management Goal. Specifically, the action would respond to Strategy 3.1 “Consider development of management approaches that assist fishery-dependent businesses to operate efficiently and profitably”. Allowing additional commercial harvest of yellowtail snapper and the ensuing revenue from such harvest would increase the profitability of fishery-dependent businesses.



## Chapter 2. Regulatory Impact Review

### Introduction

The National Marine Fisheries Service (NMFS) requires a Regulatory Impact Review (RIR) for all regulatory actions that are of public interest to satisfy our obligations under Executive Order (E.O.) 12866, as amended. In conjunction with the analysis of direct and indirect effects in the “Environmental Consequences” section of this Amendment, the RIR: 1) provides a comprehensive review of the level and incidence of impacts associated with a regulatory action; 2) provides a review of the problems and policy objectives prompting the regulatory proposals and an evaluation of the major alternatives which could be used to solve the problem; and 3) ensures that the regulatory agency systematically and comprehensively considers all available alternatives so that the public welfare can be enhanced in the most efficient and cost effective way. The RIR also serves as the basis for determining whether any proposed regulations are a "significant regulatory action" under certain criteria provided in Executive Order (E.O.) 12866. In addition, the RIR provides some information that may be used in conducting an analysis of the effects on small entities pursuant to the Regulatory Flexibility Act (RFA). This RIR analyzes the effects this regulatory action would be expected to have on the commercial sector of the South Atlantic snapper grouper fishery.

### Problems and Objectives

The problems and objectives for the proposed actions are presented in **Section 1.4** of this amendment and are incorporated herein by reference.

### Description of Fisheries

A description of the commercial sector in the snapper grouper fishery of the South Atlantic region is provided in **Section 1.7** of this amendment and is incorporated herein by reference.

### Effects of Management Measures

A detailed analysis and discussion of the expected economic effects of the proposed action is included in **Section 1.7**. The following discussion summarizes the expected economic effects of the preferred council option relative to the **Current Regulations** (i.e., the status quo).

For the recreational sector, it is assumed that overall harvest levels and rates will not change under **Preferred Council Option 3**, therefore there are no anticipated direct economic effects for the sector. **Preferred Council Option 3** is projected to increase commercial landings of yellowtail snapper, thus resulting in direct economic benefits for the sector. The economic effects on individual vessel owners would depend on each owner’s profit maximization strategy, their dependence on yellowtail snapper, their seasonal fishing behavior, and their ability to adapt

to the changing regulations. Some vessel owners may benefit from additional yellowtail snapper landings, while others may not. These types of individual vessel level effects cannot be determined with available models. **Preferred Council Option 3** is anticipated to result in an estimated annual increase of \$556,510 (2017 dollars) in gross revenue in the aggregate and an estimated annual increase of \$2,300 (2017 dollars) in gross revenue per vessel. These expected increases in gross revenue will not result in an equivalent increase in profits. In order to harvest these additional landings, vessels would need to take additional trips, which is consistent with the expectation of a longer season. Each additional trip would lead to additional trip costs as well as additional revenue from the landings. Fixed costs such as insurance and depreciation are not expected to change as they are not dependent on the number of trips.

Under **Preferred Council Option 3**, the estimated annual change in net revenue and economic profit in aggregate are expected to increase by \$202,570 and \$92,381, respectively (2017 dollars). On average, trip net cash flow per vessel and economic profit per vessel are expected to increase by \$837 and \$382 (2017 dollars). Overall, this amendment is expected to directly increase net economic benefits.

Estimates of net revenues or economic profit are not available for snapper grouper dealers. Therefore, it is not possible to estimate the net indirect economic effect (i.e., net costs or net benefits) of changes in purchases on their profits. However, in general, dealers are indirectly affected whenever gross revenues to commercial fishing vessels are expected to change (e.g., increases in gross revenues are expected to indirectly benefit dealers and vice versa). Seafood dealers are expected to be positively affected through an annual increase in their purchases of yellowtail snapper by approximately \$5,456 (2017 dollars) per year, which would be expected to increase their economic profits, under **Preferred Council Option 3** relative to current regulations. Such changes could benefit all dealers, but particularly small dealers and dealers operating under relatively small profit margins.

As stated, management measures in this amendment would have positive economic effects on vessels and dealers in regards to revenue. In aggregate, the changes in gross revenues and dealer purchases are assumed to be the same amount and an increase in revenues to vessels equates to a benefit for dealers. In regards to annual gross revenue, this management measure is expected to result in increased total gross revenue of \$556,510 (2017 dollars) in 2019, the first year of the expected implementation for the amendment. The estimated economic impacts of this increase in total annual gross revenue is provided in **Table 2.1**.

**Table 2.1.** Economic impacts associated with the anticipated net change in total annual gross revenue for Snapper Grouper Regulatory Amendment 32. All monetary estimates are in 2017 dollars.

Total Annual Gross Revenue	Total Jobs	Harvester Jobs	Income Impacts (\$ thousands)	Value-Added Impacts (\$ thousands)	Output (Sales) Impacts (\$ thousands)
\$556,510	74	18	\$2,027	\$2,863	\$5,519

Source: Calculated by NMFS SERO using the model developed for and applied in NMFS (2017).

## Public Costs of Regulations

The preparation, implementation, enforcement, and monitoring of this or any federal action involves the expenditure of public and private resources which can be expressed as costs associated with the regulations. Costs to the private sector are discussed in the effects of management measures. Estimated public costs associated with this action include:

South Atlantic Fishery Management Council (Council) costs of document preparation, meetings, public hearings, and information dissemination	\$15,000
NMFS administrative costs of document preparation, meetings and review	\$15,000
TOTAL	\$30,000

The estimate provided above does not include any law enforcement costs. Any enforcement duties associated with this action would be expected to be covered under routine enforcement costs rather than an expenditure of new funds. Council and NMFS administrative costs directly attributable to this amendment and the rulemaking process would be incurred prior to the effective date of the final rule implementing this amendment.

## Net Benefits of Regulatory Action

In terms of net benefits, actions identified to increase gross revenue may also expected to increase net economic benefits with no anticipated changes to private sector costs. It is important to specify the time period being considered when evaluating benefits and costs. According to OMB's FAQs regarding Circular A-4,<sup>5</sup> "When choosing the appropriate time horizon for estimating costs and benefits, agencies should consider how long the regulation being analyzed is likely to have resulting effects. The time horizon begins when the regulatory action is implemented and ends when those effects are expected to cease. Ideally, analysis should include all future costs and benefits. Here as elsewhere, however, a 'rule of reason' is appropriate, and the agency should consider for how long it can reasonably predict the future and limit its analysis to this time period. Thus, if a regulation has no predetermined sunset provision, the agency will need to choose the endpoint of its analysis on the basis of a judgment about the foreseeable future."

For current purposes, the reasonably "foreseeable future" is considered to be the next 5 years. There are two primary reasons for considering the next 5 years the appropriate time period for evaluating the benefits and costs of this regulatory action rather than a longer (or shorter) time period. First, this regulatory action does not include a predetermined sunset provision. Second, based on the history of management in the snapper-grouper fishery in the South Atlantic, regulations such as those considered in this amendment are often revisited within 5 years or so.

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<sup>5</sup> See p. 4 at [https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a004/a-4\\_FAQ.pdf](https://obamawhitehouse.archives.gov/sites/default/files/omb/assets/OMB/circulars/a004/a-4_FAQ.pdf)

The analyses of the net changes in economic profit indicates an annual increase of \$92,381 (2017 dollars). In discounted terms and over a 5-year time period, the total net present value of this increase in economic profit is \$378,780 using a 7% discount rate and \$423,078 using a 3% discount rate. The estimated non-discounted public costs resulting from the regulation are \$30,000. The costs resulting from the amendment and the associated rulemaking process should not be discounted as they will be incurred prior to the effective date of the final rule.

Based on this information, this regulatory action is expected to increase net benefits to the Nation. Over a 5-year time period, the quantified net economic benefits are expected to be \$348,780 using a 7% discount rate and \$393,078 using a 3% discount rate.

## **Determination of Significant Regulatory Action**

Pursuant to E.O. 12866, a regulation is considered a “significant regulatory action” if it is likely to result in: 1) an annual effect of \$100 million or more or adversely affect in a material way the economy, a sector of the economy, productivity, competition, jobs, the environment, public health or safety, or State, local, or tribal governments or communities; 2) create a serious inconsistency or otherwise interfere with an action taken or planned by another agency; 3) materially alter the budgetary impact of entitlements, grants, user fees, or loan programs or the rights or obligations of recipients thereof; or 4) raise novel legal or policy issues arising out of legal mandates, the President’s priorities, or the principles set forth in this executive order. Based on the information provided above, these actions have been determined to not be economically significant for the purposes of E.O. 12866.

## Chapter 3. Regulatory Flexibility Act Analysis

### Introduction

The purpose of the Regulatory Flexibility Act (RFA) is to establish a principle of regulatory issuance that agencies shall endeavor, consistent with the objectives of the rule and of applicable statutes to fit regulatory and informational requirements to the scale of businesses, organizations, and governmental jurisdictions subject to regulation. To achieve this principle, agencies are required to solicit and consider flexible regulatory proposals and to explain the rationale for their actions to assure such proposals are given serious consideration. The RFA does not contain any decision criteria; instead, the purpose of the RFA is to inform the agency, as well as the public, of the expected economic effects of various alternatives contained in the regulatory action and to ensure the agency considers alternatives that minimize the expected economic effects on small entities while meeting the goals and objectives of the applicable statutes (e.g., the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act)).

With certain exceptions, the RFA requires agencies to conduct an initial regulatory flexibility analysis (IRFA) for each proposed rule. The IRFA is designed to assess the effects various regulatory alternatives would have on small entities, including small businesses, and to determine ways to minimize those effects. An IRFA is primarily conducted to determine whether the proposed regulatory action would have a significant economic effect on a substantial number of small entities. In addition to analyses conducted for the RIR, the IRFA provides: 1) a description of the reasons why action by the agency is being considered; 2) a succinct statement of the objectives of, and legal basis for, the proposed regulatory action; 3) a description and, where feasible, an estimate of the number of small entities to which the proposed regulatory action will apply; 4) a description of the projected reporting, record-keeping, and other compliance requirements of the proposed regulatory action, including an estimate of the classes of small entities which will be subject to the requirements of the report or record; 5) an identification, to the extent practicable, of all relevant federal rules, which may duplicate, overlap, or conflict with the proposed rule; and 6) a description of any significant alternatives to the proposed regulatory action which accomplish the stated objectives of applicable statutes and would minimize any significant economic effects of the proposed regulatory action on small entities.

In addition to the information provided in this section, additional information on the expected economic effects of the proposed regulatory action is included in the Regulatory Impact Review (RIR).

### Statement of the need for, objectives of, and legal basis for the rule

A discussion of the reasons why action by the agency is being considered is provided in **Section 1.4**. The goal of this proposed regulatory action is to minimize the probability of in-

season closures for yellowtail snapper. The objective of this proposed regulatory action is to achieve optimum yield for yellowtail snapper while minimizing, to the extent possible, adverse social and economic effects due to in-season closures. The Magnuson-Stevens Fishery Conservation and Management Act serves as the legal basis for the proposed regulatory action.

### **Description and estimate of the number of small entities to which the proposed action would apply**

This proposed regulatory action would revise accountability measures (AMs) for yellowtail snapper in the South Atlantic such that an in-season closure will occur for the commercial sector only if the commercial annual catch limit has been met and the total catch (commercial and recreational) reaches, or is projected to reach, 80% of the total annual catch limit. Thus, this action is expected to directly regulate businesses that commercially harvest South Atlantic yellowtail snapper.

As of August 17, 2018, the number of vessels with a valid or renewable snapper grouper commercial permit was 644, composed of 536 transferable, “unlimited” permits (SG1 permits) and 108 non-transferable, 225 pound trip limit permits (SG2 permits). With the exception of species specific trip limits, there is no aggregate snapper grouper harvest limit per trip for vessels with SG1 permits, while vessels with SG2 permits cannot harvest more than 225 pounds per trip. The vast majority of these vessels harvest multiple snapper grouper species. Some permit holders retain their permits for speculative or other non-harvesting purposes. On average, only 242 vessels used their commercial permits for harvesting yellowtail snapper from 2014 through 2016. The proposed regulatory change will only directly regulate permit holders that use their permits for harvesting yellowtail snapper. Thus, it is expected that approximately 242 vessels will be directly regulated by this proposed regulatory action.

Although NMFS started to collect ownership data for businesses that possess commercial snapper grouper permits in 2017, this data are currently incomplete and historical data are not available. Therefore, it is not currently feasible to accurately determine affiliations between these particular businesses. As a result of the incomplete ownership data, for purposes of this analysis, it is assumed each of these vessels is independently owned by a single business, which is expected to result in an overestimate of the actual number of businesses directly regulated by this proposed regulatory action. Thus, this proposed regulatory action is estimated to directly regulate 254 businesses in the commercial sector of the South Atlantic snapper grouper fishery.

All monetary estimates in the following discussion are in 2017 dollars. For vessels that harvested yellowtail snapper from 2015 through 2017, average annual gross revenue was approximately \$53,000 per vessel, average annual net cash flow per vessel was approximately \$19,560, and net revenue from operations was approximately \$1,940 per vessel. Net revenue from operations is considered the best available estimate of economic profit.

The Small Business Administration has established size standards for all major industry sectors in the U.S. including commercial fishing businesses. On December 29, 2015, NMFS issued a final rule establishing a small business size standard of \$11 million in annual gross receipts (revenue) for all businesses primarily engaged in the commercial fishing industry

(NAICS code 11411) for RFA compliance purposes only (80 FR 81194, December 29, 2015). In addition to this gross revenue standard, a business primarily involved in commercial fishing is classified as a small business if it is independently owned and operated, and is not dominant in its field of operations (including its affiliates). The maximum average annual gross revenue from 2014 through 2016 for a single vessel in the commercial sector of the South Atlantic yellowtail snapper fishery was about \$.57 million.

Based on the information above, all businesses directly regulated by this proposed regulatory action are determined to be small businesses for the purpose of this analysis.

### **Description of the projected reporting, record-keeping and other compliance requirements of the proposed rule, including an estimate of the classes of small entities which will be subject to the requirement and the type of professional skills necessary for the preparation of the report or records**

This proposed regulatory action would not establish any new reporting or record-keeping requirements.

### **Identification of all relevant federal rules, which may duplicate, overlap or conflict with the proposed rule**

No duplicative, overlapping, or conflicting federal rules have been identified.

### **Significance of economic effects on small entities**

#### Substantial number criterion

This proposed regulatory action, if implemented, would be expected to directly regulate the 242 vessels that commercially harvest South Atlantic yellowtail snapper of the 644 vessels that currently possess South Atlantic snapper grouper permits. Thus, this proposed regulatory action is expected to directly regulate 100% of the vessels that commercially harvest yellowtail snapper and almost 38% of the vessels that currently possess South Atlantic snapper grouper commercial permits. All directly regulated businesses have been determined, for the purpose of this analysis, to be small entities. Based on this information, the proposed regulatory action is expected to affect a substantial number of small businesses.

#### Significant economic effects

The outcome of “significant economic impact” can be ascertained by examining two factors: disproportionality and profitability.

Disproportionality: Do the regulations place a substantial number of small entities at a significant competitive disadvantage to large entities?

All entities directly regulated by this regulatory action have been determined to be small entities. Thus, the issue of disproportionality does not arise in the present case.

Profitability: Do the regulations significantly reduce profit for a substantial number of small entities?

The proposed action to revise AMs for yellowtail snapper in the South Atlantic is expected to increase the commercial harvest of yellowtail snapper by 192,564 lbs gw. As a result, annual gross revenue for the 242 directly regulated vessels is expected to increase by \$556,510, or by \$2,300 per vessel on average. Thus, average annual gross revenue per vessel is expected to increase by about 4.3%. In order to attain this higher level of landings and increased gross revenue, these vessels are expected to take additional trips; specifically, almost three additional trips per vessel. Additional trips will lead to higher trip (variable) costs, which will absorb some of the higher gross revenue. As a result, average annual net cash flow per vessel is expected to increase by \$837, or by about 4.3%, while average annual economic profit per vessel is expected to increase by \$382, which represents an increase of 19.7%.

As a result of the information above, a significant reduction in profits for a substantial number of small entities is not expected as a result of the proposed regulatory action.

### **Description of significant alternatives to the proposed actions and discussion of how the alternatives attempt to minimize economic impacts on small entities**

This proposed regulatory action, if implemented, is not expected to reduce the profits of any small businesses directly regulated by this action. As a result, the issue of significant alternatives is not relevant.



## Chapter 4. References

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## Appendix A. Data Analyses of Council Options

### Expected Closure Dates of the Commercial and Recreational Yellowtail Snapper Fisheries Under Proposed In-season Accountability Measures

LAPP/DM Branch  
Southeast Regional Office

The South Atlantic Fishery Management Council manages yellowtail snapper from federal waters at the Virginia/North Carolina border through the Atlantic side of the Florida Keys under the Snapper Grouper Fishery Management Plan (FMP). In 2016, Regulatory Amendment 25 to the FMP for the Snapper-Grouper Fishery of the South Atlantic Region changed the commercial season to August 1 through July 31 for both the recreational and commercial sectors. This analysis investigates when the commercial and recreational sectors will be expected to close under the proposed in-season accountability measures (**Table A-1**) using observed landings between 2015 and 2017 for both sectors as described in **Table A-2** and **Figure A-1**.

**Table A-1.** South Atlantic yellowtail snapper recreational and commercial in-season accountability measures alternatives stated in Amendment 32.

<b>Options:</b>	<b>In-season accountability measure:</b>
Current Regulations	Recreational and commercial sectors close if their respective sector's ACL is met or projected to be met.
Council Option 2	An in-season closure will not occur for either sector until the total ACL is met or projected to be met. Both sectors will close at that time.
Preferred Council Option 3	An in-season closure will occur for only the commercial sector if the commercial ACL has been met and the 80% of the total ACL is met or is projected to be met.
Council Option 4	An in-season closure will occur for only the commercial sector if the commercial ACL has been met and the 70% of the total ACL is met or is projected to be met.

**Table A-2.** Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic for fishing years 2012-2017.

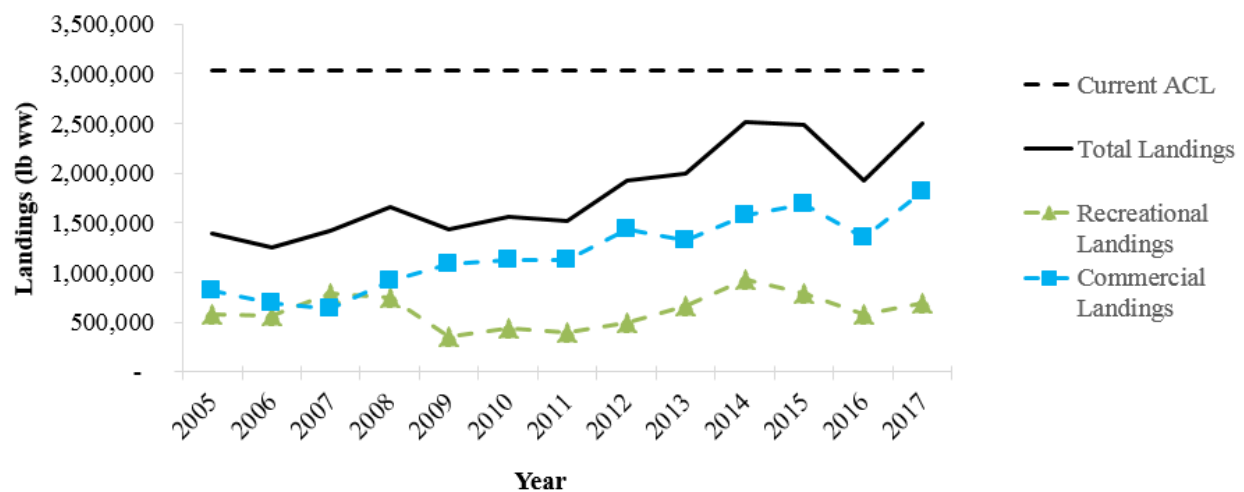
Fishing Year	Rec. Landings (lbs ww)	Com. Landings (lbs ww)	Total Landings (lbs ww)	Total ACL (lbs ww)	% Total ACL	% Rec ACL	% Com ACL
2012	493,409	1,439,585	1,932,994	2,627,796	74%	48%	90%
2013	666,027	1,328,968	1,994,995	3,037,500	66%	46%	83%
2014	933,760	1,575,955	2,509,715	3,037,500	83%	65%	99%
2015	791,157	1,691,804	2,482,961	3,037,500	82%	55%	106% <sup>a</sup>
2016	576,578	1,353,176	1,929,754	3,037,500	NA*	NA*	NA*
2016/2017	672,464	1,810,770	2,483,234	3,037,500	82%	47%	114% <sup>b</sup>

\*The fishing season for yellowtail snapper was modified in Regulatory Amendment 25, which took effect on August 12, 2016. For this reason, 2016 includes January through August 12, 2016 landings and 2016/17 fishing season landings are provided separately.

<sup>a</sup>In-season closure for commercial sector from October 31, 2015 to December 31, 2015.

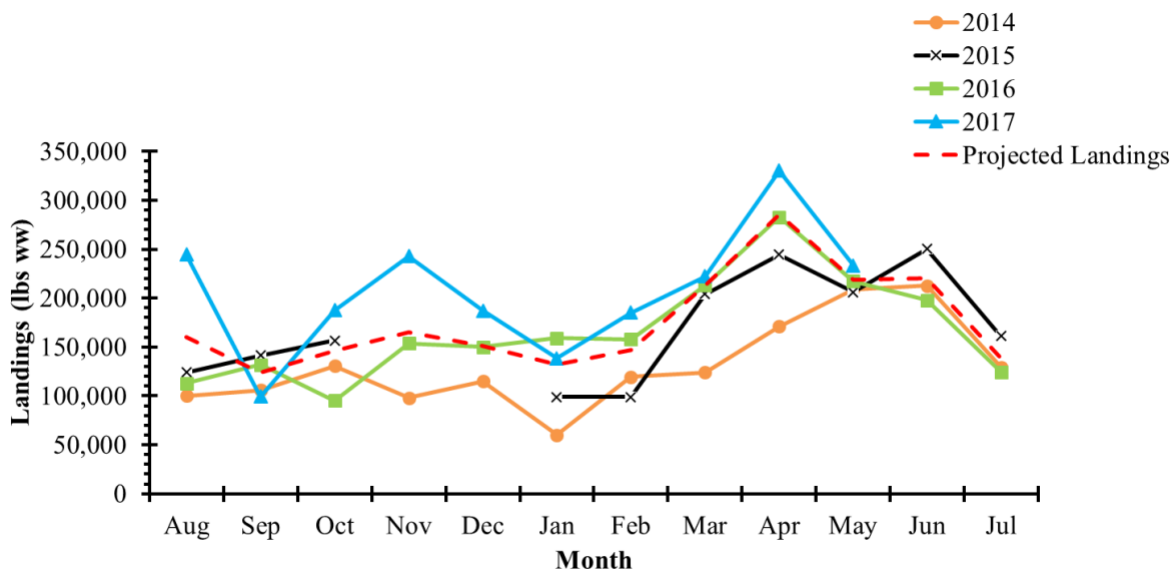
<sup>b</sup>In-season closure for commercial sector from June 3, 2017 to July 31, 2017.

Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).



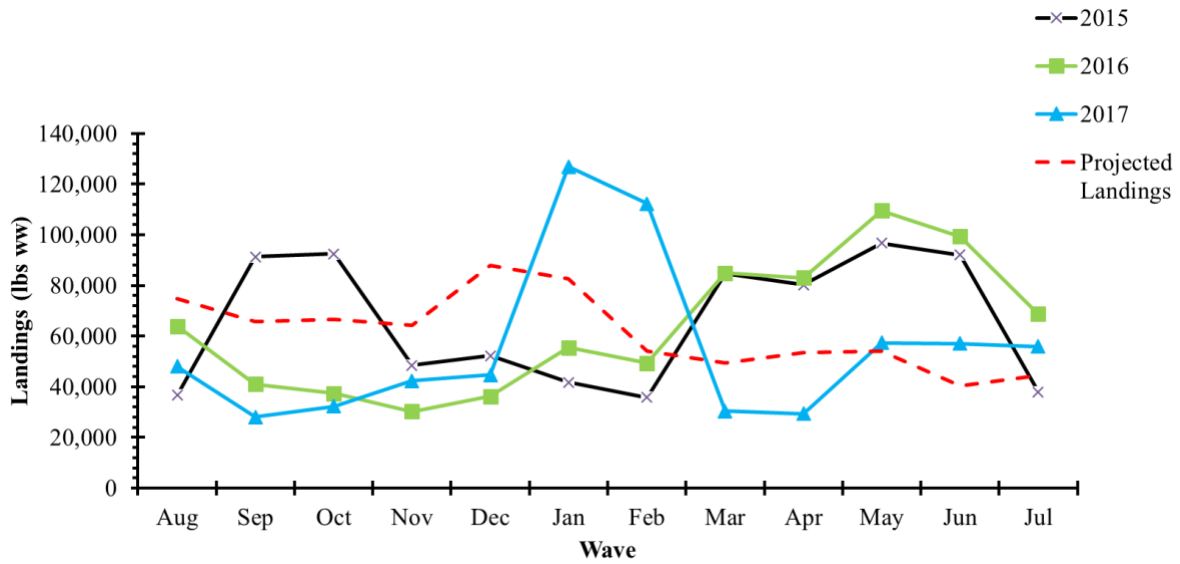
**Figure A-1.** Commercial and recreational landings (lbs ww) of yellowtail snapper in the South Atlantic, 2005-2017. Total landings are indicated by solid black line and current total ACL is depicted by the dashed line. Source: SEFSC Commercial ACL Dataset (November 5, 2018) and SEFSC Recreational ACL Dataset (August 9, 2018).

Final commercial landings for 2014 through 2017 were provided from the Southeast Fisheries Science Center (SEFSC) on November 5, 2018. Monthly South Atlantic commercial yellowtail snapper landings were averaged from 2014 through 2017 to project future landings (**Figure A-2**). Landings from 2014 were used to estimate projected landings in June and July since there was a closure during these months in 2017. Landings from 2014 were also used to estimate projected landings in November and December since there was a closure during these months in 2015. Regulatory Amendment 25 changes to the commercial fishing year are assumed to have minimal impact on monthly fishing behavior, and no adjustments were made to monthly landings in 2016. Based on the projected future commercial landings of yellowtail snapper, the commercial sector will close as described in **Table A-3**. Council Option 2 was the only option that a commercial sector closure was not expected.



**Figure A-2.** South Atlantic yellowtail snapper monthly commercial landings (lb ww) for 2014-2017, and projected future landings. Source: SEFSC Commercial ACL Dataset (November 5, 2018).

A recreational landings dataset was provided from the SEFSC on August 9, 2018. This dataset includes landings from the Southeast Region Headboat Survey (SRHS) and Marine Recreational Information Program (MRIP). SRHS data provides monthly landings estimates whereas MRIP data is provided in two month waves (e.g., January and February = wave 1, March and April = wave 2, etc.). To estimate monthly landings, MRIP waves were used to estimate to monthly landings by assuming equal daily catch rates between months, and then SRHS landings were added back in. Average monthly landings from 2015-2017 were used as a proxy for future landings. Regulatory Amendment 25 changes to the recreational fishing year are assumed to not have impacted monthly fishing behavior since the recreational sector has never reached their ACL. Recreational landings from 2015, 2016, 2017 and projected future landings are summarized in **Figure A-3**. Based on the projected recreational landings of yellowtail snapper, the recreational sector will not be expected to close under the proposed in-season accountability measures (**Table A-3**).



**Figure A-3.** South Atlantic yellowtail snapper monthly recreational landings (lb ww) for 2015-2017, and projected future landings. Source: SEFSC Recreational ACL Dataset (August 9, 2018).

**Table A-3.** The projected South Atlantic yellowtail snapper commercial and recreational landings (lb ww) and closure dates expected with each proposed in-season accountability measure alternative.

Option	Combined ACL	Recreational ACL	Projected Recreational Landings	Recreational Closure Date	Commercial ACL	Projected Commercial Landings	Commercial Closure Date	Total Landings	% Combined ACL Landed
Current Regulations	3,037,500	1,440,990	738,194	No closure	1,596,510	1,596,510	11-May	2,334,704	77%
Option 2	3,037,500	Combined ACL (3,037,500)	738,194	No closure	Combined ACL (3,037,500)	2,102,729	No closure	2,840,923	94%
<b>Preferred Option 3</b>	<b>3,037,500</b>	<b>Combined ACL (3,037,500)</b>	<b>738,194</b>	<b>No closure</b>	<b>80% Combined ACL (2,430,000)</b>	<b>1,810,256</b>	<b>9-Jun</b>	<b>2,548,450</b>	<b>84%</b>
Option 4	3,037,500	Combined ACL (3,037,500)	738,194	No closure	70% Combined ACL (2,126,250)	1,596,510	11-May*	2,334,704	77%

\*The 70% combined ACL is met before the commercial sector is expected to reach their sector ACL (1,596,510 lb ww), and therefore, the commercial sector will close when the commercial ACL is reached as projected for the No-Action alternative.

The reliability of these results is dependent upon the accuracy of the underlying data and input assumptions. We have attempted 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.