

# Amendment 51 to the Snapper Grouper Fishery Management Plan of the South Atlantic Region

## Catch Level Adjustments and Allocations for Snowy Grouper



Decision Document  
March 2022

## Background

The South Atlantic stock of snowy grouper was first assessed through the Southeast Data, Assessment, and Review (SEDAR) process in 2004. The results of this assessment (SEDAR 4) indicated that the stock was both overfished and undergoing overfishing. In

response, the South Atlantic Fishery Management Council (Council) and the National Marine Fisheries Service (NMFS) developed Amendment 13C to the Snapper Grouper Fishery Management Plan (Snapper Grouper FMP) to end overfishing. This amendment reduced the

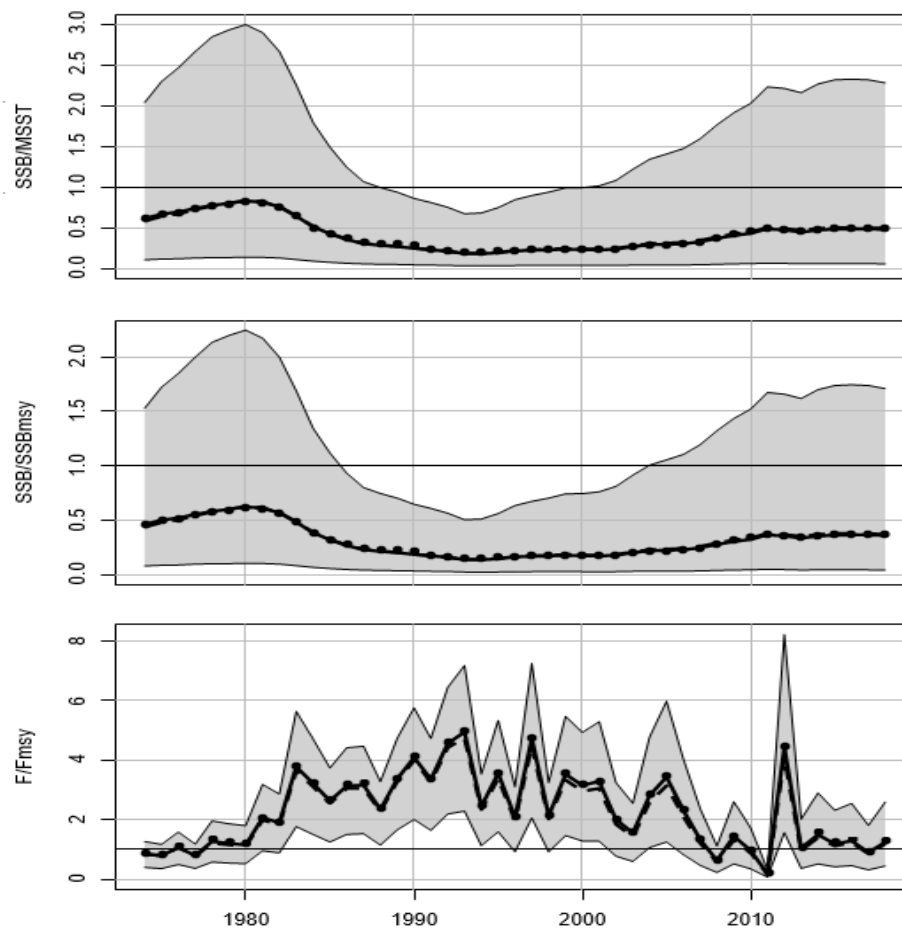
**History of Snowy Grouper Stock Status**

Assessment	Overfished	Overfishing
SEDAR 4 (2006)	X	X
SEDAR 36 (2013)	X	
SEDAR 36 Update (2020)	X	X

quota as well as the trip and bag limit. In 2006, a 34-year rebuilding plan was implemented through Amendment 15A to the Snapper Grouper FMP, with a terminal year of the rebuilding plan in 2042.

In 2013, the stock was assessed through SEDAR 36. This assessment indicated that the South Atlantic stock of snowy grouper remained overfished and was no longer experiencing overfishing. Through Regulatory Amendment 20, the Council and NMFS revised the rebuilding strategy, and modified the annual catch limits (ACL), recreational bag limit, and recreational season.

The update to SEDAR 36 was completed in 2020. This assessment included revised estimates for recreational catch from the Marine Recreational Information Program (MRIP) based on the Fishing Effort Survey (FES). The results of this assessment indicated that the South Atlantic snowy grouper stock is overfished and is experiencing overfishing (**Figure 1**). The Council's Scientific and Statistical Committee (SSC) reviewed the SEDAR 36 Update (2020) at their January 2021 meeting and determined that the assessment is based on the best scientific information available (BSIA). This assessment updated commercial and recreational landings and discards, indices of abundance, length compositions, and maximum age.



**Figure 1.** Estimated time series of spawning stock biomass (SSB) and fishing mortality (F) relative to benchmarks. Solid line indicates estimates from base run of the Beaufort Assessment Model; gray error bands indicate 5<sup>th</sup> and 95<sup>th</sup> percentiles of the ensemble modeling. Top panel: SSB relative to the minimum stock size threshold (MSST); if less than 1, stock is overfished. Middle panel: SSB relative to  $SSB_{MSY}$ ; if less than 1, stock is overfished. Bottom panel: F relative to  $F_{MSY}$ ; if  $> 1$  stock is undergoing overfishing. *Source: SEDAR 36 Update (2020).*

The Council received the results of the assessment and the SSC’s recommendations for the overfishing limit (OFL) and acceptable biological catch (ABC) at their March 2021 meeting. The Council directed staff to begin work on a plan amendment to adjust catch levels based on the SSC recommendations and SEDAR 36 Update. Additionally, the Council’s Snapper Grouper Advisory Panel (AP) discussed and provided recommendations on modifications to snowy grouper management measures at their April 2021 meeting. These recommendations can be found in the [Snapper Grouper AP’s Meeting Summary Report](#).

NMFS notified the Council on June 10, 2021, that management action is necessary for snowy grouper as the stock is undergoing overfishing and remains overfished. Once the Council is notified that a stock is undergoing overfishing and overfished, the Magnuson-Stevens Fishery Conservation and Management Act requires the Council and NMFS to implement a plan amendment to end overfishing immediately. NMFS recommended that the Council end overfishing of snowy grouper and continue stock rebuilding based on the results of SEDAR 36 Update.

Assessment Link: [http://sedarweb.org/docs/suar/2020\\_SEDAR36U\\_SAR\\_November2020.pdf](http://sedarweb.org/docs/suar/2020_SEDAR36U_SAR_November2020.pdf)

Fishery Overview: [https://safmc-shinyapps.shinyapps.io/SA\\_FisheryDataSnowyGrouper/](https://safmc-shinyapps.shinyapps.io/SA_FisheryDataSnowyGrouper/)

## Proposed management changes in this amendment

- Adjust catch levels (acceptable biological catch and annual catch limit) and revise annual optimum yield
- Revise sector allocations
- Consider other changes to management

## Objectives for this meeting

- Provide guidance on options for development
- Review scoping comments
- Pick preferred options where appropriate (Particularly Action 1 and Action 2)

## Tentative amendment timing

March 2021	Reviewed SEDAR 36 Update results and direct staff to begin a plan amendment
September 2021	Review options paper and provide guidance to staff
October 2021	Obtain input from AP
December 2021	Review AP comments, review preliminary analyses, and approve for scoping
<b>March 2022</b>	<b>Review scoping comments and make needed modifications</b>
April 2022	Obtain input from AP
June 2022	Review modifications to the amendment, AP comments, select preferred alternatives, and approve for public hearings
July/August 2022	Conduct public hearings
September 2022	Review public hearing comments and approve all actions
December 2022	Review final draft amendment and consider approval for formal review

## DRAFT Purpose and Need Statements

This Purpose and Need statement are draft versions and may change.

The *purpose* of this fishery management plan amendment is to set an acceptable biological catch level, revise the annual catch limits, annual optimum yield, and sector allocations for South Atlantic snowy grouper based on the results of the most recent stock assessment and modify management and accountability measures.

The *need* for this fishery management plan amendment is to end overfishing of South Atlantic snowy grouper, continue to rebuild the stock, and achieve optimum yield while minimizing, to the extent practicable, adverse social and economic effects.

## Acceptable Biological Catch and Overfishing Limit

The SSC reviewed the snowy grouper stock assessment (SEDAR 36 Update 2020) at their January 2021 meeting. The SSC determined that the assessment addressed the terms of reference appropriately, was conducted using the BSIA, was adequate for determining stock status and supporting fishing level recommendations, and addressed uncertainty consistent with expectations and available information. The SSC applied the ABC Control Rule and recommended an ABC and OFL for snowy grouper as total removals (including discards). These recommendations are expressed as landings in Table 1. **ABC/OFL recommendations in pounds whole weight are converted to pounds gutted weight using a 1.18 NMFS conversion factor. According to SEDAR 36 Update, 95.4% of total removals of snowy grouper are landings and 4.6% are dead discards.** Landings recommendations have been calculated to account for dead discards.

**Table 1.** South Atlantic Snowy grouper OFL and ABC recommendations (landings) in pounds gutted weight (lbs gw) and numbers of fish.

OFL RECOMMENDATIONS					
Year	Removals (lbs ww)	Removals (lbs gw)	Removals (numbers of fish)	Landings (lbs gw)	Landings (numbers of fish)
2023	194,000	164,407	21,000	156,844	20,034
2024	193,000	163,559	20,000	156,035	19,080
2025	192,000	162,712	20,000	155,227	19,080
2026	188,000	159,322	20,000	151,993	19,080
ABC RECOMMENDATIONS					
Year	Removals (lbs ww)	Removals (lbs gw)	Removals (numbers of fish)	Landings (lbs gw)	Landings (numbers of fish)
2023	148,000	125,424	16,000	119,954	15,624
2024	150,000	127,119	16,000	121,272	15,624
2025	152,000	128,814	16,000	122,889	15,624
2026	152,000	128,814	16,000	122,889	15,624

The current ABC and the total ACL for snowy grouper is 218,848 pounds (lbs) whole weight (ww) (185,464 lbs gw) (Regulatory Amendment 20, SAFMC 2015). Commercial and recreational sector ACLs are currently monitored using different units. The commercial sector ACL is monitored using gutted weight and the recreational sector ACL is monitored using numbers of fish. Few snowy grouper are observed in the recreational fishery and the low sample size can cause annual variation in the estimated average weight for snowy grouper. The Council will continue to track the recreational ACL in numbers of fish. The recreational ACL was converted to numbers of fish using projected annual average weights. Though the ABC in numbers of fish is consistent throughout the projection timeframe, average weight as well as ABCs and ACLs measured by weight are expected to increase as the stock rebuilds.

# Options for Proposed Actions

## 1. Revise the acceptable biological catch, total annual catch limit, and annual optimum yield for snowy grouper

### Background:

- Based on **Option 2** (ABC=ACL=OY), the following decreases from the current total ACL may be observed under proposed catch levels (**Table 2**).

**Table 2.** The difference and percent difference from the current total ACL based on **Action 1, Option 2**. Current total ACL is 185,464 lbs gw.

Total ACL (currently 185,464 lbs gw)*			
Year	Updated Total ACL (lbs gw)	Difference from current ACL (lbs gw)	Percent Difference from current ACL
2023	119,954	-65,510	-42.9%
2024	121,272	-64,192	-41.9%
2025	122,889	-62,575	-40.6%
2026+	122,889	-62,575	-40.6%

\*The current ACL was determined using MRIP CHTS recreational landings.

**PREVIOUS COUNCIL DIRECTION TO STAFF:** Keep recreational landings in numbers of fish

### Options:

**Table 3.** ACL, OY, and ABC options of proposed **Action 1**.

Options	ABC, total ACL, annual OY	Recreational landings data used
<b>Option 1 (No Action)</b>	ACL=OY=current ABC	MRIP-CHTS
<b>Option 2</b>	ACL=OY=updated ABC	MRIP-FES
<b>Option 3</b>	ACL=OY=95% updated ABC	MRIP-FES
<b>Option 4</b>	ACL=OY=90% updated ABC	MRIP-FES
<b>Option 5</b>	ACL=OY=80% updated ABC	MRIP-FES

**Table 4.** The total ACL for snowy grouper under **Options 1 (No Action) – 5** in gutted weight

Option	Pounds Gutted Weight			
	2023	2024	2025	2026*
Option 1 (No Action)**	185,464	185,464	185,464	185,464
Option 2***	119,954	121,272	122,889	122,889
Option 3***	113,956	115,208	116,745	116,745
Option 4***	107,959	109,145	110,600	110,600
Option 5***	95,963	97,018	98,311	98,311

\*The 2026 ACL will remain in place until modified.

\*\*Current ABC=ACL and this represents CHTS estimates where appropriate for recreational data.

\*\*\*Represents FES estimates where appropriate for recreational data.

### Scoping Comments:

No Scoping comments relevant to this action were received.

### Committee Action:

- REVIEW SCOPING COMMENTS PERTAINING TO THIS ACTION.
- REVIEW RANGE OF OPTIONS AND MODIFY AS NEEDED.
- SELECT PREFERRED OPTION TO FACILITATE FURTHER ANALYSES.

DRAFT MOTION: SELECT OPTION X AS THE PREFERRED OPTION FOR ACTION 1.

## 2. Revise sector allocations and sector annual catch limits for snowy grouper

### Background:

- Commercial landings of snowy grouper in the South Atlantic averaged 106.6% of the commercial ACL from 2015 through 2020. Commercial closures have occurred each year from 2015-2020 (Table 5). The commercial split season, which allows for the incidental harvest of snowy grouper when targeting blueline tilefish, allocates 70% of the commercial ACL to January-June and 30% of the commercial ACL to July-December. Any underage of the sector ACL in Season 1 automatically rolls over into Season 2. This split season went into effect February 2020 through Regulatory Amendment 27.

**Table 5.** Commercial landings (lbs gw) and the percentage of the commercial ACL landed each year from 2015-2020.

Note: The commercial split season was first effective in 2020.

Year	Season(s) and Closures	ACL (lbs gw)	% ACL
2020	Jan 1 - Jun 30, Jul 1 - Dec 31 (closure 12/12/20)	153,935	100.5
2019	Jan 1 - Dec 31 (closure: 8/3/19)	144,315	105.2
2018	Jan 1 - Dec 31 (closure: 7/24/18)	144,315	101.8
2017	Jan 1 - Dec 31 (closure: 6/22/17)	135,380	100.3
2016	Jan 1 - Dec 31 (closure: 6/14/16)	125,760	118.8
2015	Jan 1 - Dec 31 (closure: 7/6/2015, re-opened 8/20/2015, 9/22/15)	115,451	112.7

Source: [http://sero.nmfs.noaa.gov/sustainable\\_fisheries/acl\\_monitoring/index.html](http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/index.html)

- Recreational landings of snowy grouper in the South Atlantic averaged 68.8% of the recreational ACL from 2015 through 2020 based on CHTS (i.e. not FES) landings (Table 6). The snowy grouper recreational bag limit was reduced to 1 fish per vessel per day in October 2006 (Amendment 13C) to constrain harvest below the ACL.



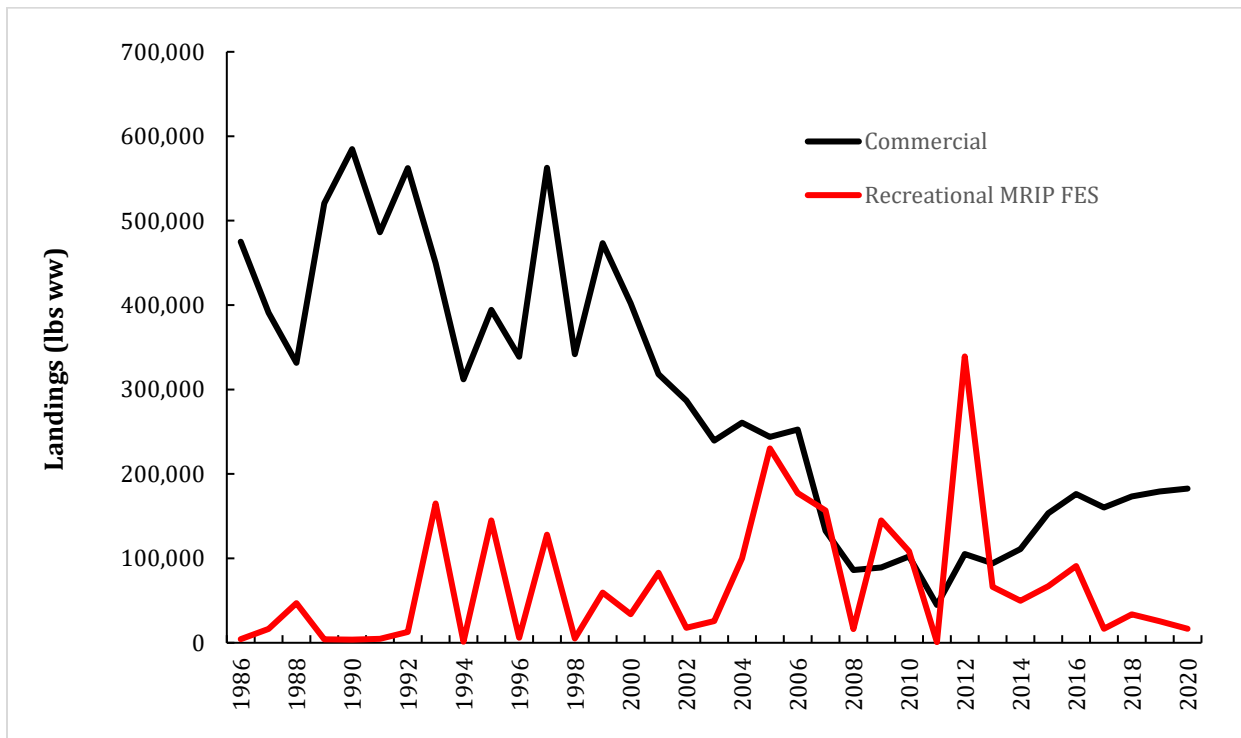
**Table 6.** Recreational landings (numbers) and the percentage of the recreational ACL landed each year from 2015-2020.

Note: Since the ACLs through 2020 were established using CHTS data, CHTS landings were used to determine the % ACL used each year from 2015-2020.

Year	Season and Closures	ACL (numbers of fish; MRIP CHTS)	% ACL
2020	May 1 – Aug 31	5,315	25.0
2019	May 1 – Aug 31	5,315	37.0
2018	May 1 – Aug 31	4,983	56.0
2017	May 1 – Aug 31	4,819	38.1
2016	May 1 – Aug 31	4,483	217.4
2015	May 1 – Aug 31 (closure: 9/1/15)	4,152	39.0

Source: [http://sero.nmfs.noaa.gov/sustainable\\_fisheries/acl\\_monitoring/index.html](http://sero.nmfs.noaa.gov/sustainable_fisheries/acl_monitoring/index.html)

- Figure 2 shows snowy grouper commercial and recreational landings (lbs ww) by year from 1986 through 2020. In 2011, the 240 ft deepwater closure was put into place through Amendment 17B for six species, including snowy grouper, but was then removed later in 2011 through Regulatory Amendment 10.



**Figure 2.** Snowy grouper commercial and recreational landings (lbs ww) by year from 1986 through 2020. Commercial landings are in black. Recreational MRIP FES estimates are in red. Sources: SEFSC Commercial ACL Datasets (Commercial ACL File October 9, 2020 and

the ACL file provided April 5, 2021 for landings from 2014-2020); SEFSC Recreational MRIP FES ACL file (May 11, 2021).

- Percentages under **Option 2** are based on average landings from 1986 to 2005 using a revised dataset that is inclusive of MRIP FES estimates.
- Allocation under **Option 3** is based on applying the formula of sector annual catch limit = ((mean landings 2006-2008)\*0.5) + ((mean landings 1986-2008)\*0.5) to a revised dataset that is inclusive of Marine Recreational Information Program Fishing Effort Survey estimates.
- For **Options 2** and **3**, the total ACL listed in the tables is representative of Option 2 (ACL=ABC) for Action 1. The revised total annual catch limit includes recreational landings based on the MRIP FES method and reflects stock assessment results of SEDAR 36 Update.
- Note that the commercial snowy grouper ACL is currently allocated between two seasons with 70% of the commercial ACL allocated to season 1 (Jan-Jun) and 30% to season two (Jul-Dec).

## Options:

**Table 7.** Allocation options for proposed **Action 2**.

Option	Commercial/recreational allocation	Basis for allocation
<b>Option 1 (No change)</b>	83%/17%	Average landings from 1986-2005 used in Reg. Amendment 20
<b>Option 2</b>	87.55%/12.45%	Updated Average landings from 1986-2005
<b>Option 3</b>	73.36%/26.64%	Allocation formula

**Note:** all options applied to the revised total ACL from previous action.

**Table 8.** The commercial and recreational sector allocations for snowy grouper based on the revised total ACL=ABC from Option 2 of Action 1. Recreational allocations were determined using an average weight from 2016-2018 from SEDAR 36 Update (8.93 lbs gw). The commercial season is split into two seasons. Season 1 is from January 1 – June 31 and it receives 70% of the total commercial ACL. Season 2 is from July 1 – December 31 and it receives 30% of the total commercial ACL.

\*The 2026 ACL would remain in place until modified.

Year	Recreational Allocation of the Total ACL	Recreational ACL (numbers of fish)	Commercial Allocation of the Total ACL	Commercial ACL (lbs gw)	Commercial Season 1 (lbs gw) 70%	Commercial Season 2 (lbs gw) 30%
<b>Option 1 (No Action)</b>						
2023	17%	2,284	83%	99,562	69,693	29,869
2024		2,309		100,656	70,459	30,197
2025		2,339		101,998	71,399	30,599
2026*		2,339		101,998	71,399	30,599
<b>Option 2</b>						
2023	12.45%	1,679	87.55%	109,038	76,327	32,711
2024		1,698		110,236	77,165	33,071
2025		1,720		111,706	78,194	33,512
2026*		1,720		111,706	78,194	33,512
<b>Option 3</b>						
2023	26.64%	3,573	73.36%	88,046	61,632	26,414
2024		3,612		89,014	62,310	26,704
2025		3,661		90,201	63,141	27,060
2026*		3,661		90,201	63,141	27,060

**Note:** The revised sector annual catch limits in Options 1 (No Action) through 3 reflect the revised total annual catch limit in Option 2 of Action 1. The revised total annual catch limit includes recreational landings from the MRIP FES method where appropriate, as well as updates to commercial and headboat landings used in the latest assessment (SEDAR 36 update).

**Scoping Comments:**

- Two commenters were opposed to reallocations which resulted in a higher allocation to the recreational sector.
- One of these commenters expressed concern over increasing discards with reduce catch levels especially as fishermen continue to target blueline tilefish.

**Committee Action:**

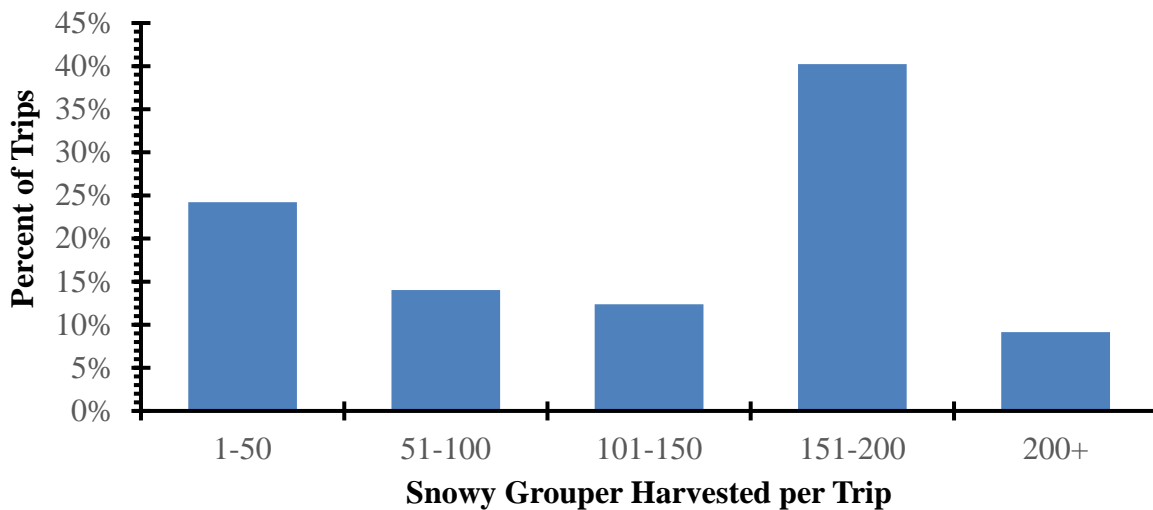
- REVIEW SCOPING COMMENTS PERTAINING TO THIS ACTION.
- REVIEW RANGE OF OPTIONS AND MODIFY AS NEEDED.
- SELECT PREFERRED OPTION TO FACILITATE FURTHER ANALYSES.

DRAFT MOTION: SELECT OPTION X AS THE PREFERRED OPTION FOR ACTION 2.

### 3. Reduce the snowy grouper commercial trip limit

#### Background:

- Approximately 40% of the trips harvesting snowy grouper are estimated to have landed between 151 and 200 lbs gw (**Figure 3**; also see **Appendix I**). Trips estimated to have harvested greater than 200 lbs gw were normalized to 200 lbs gw when estimating potential reductions from lowering trip limit trip limit reductions (**Table 9**).



**Figure 3.** The percent of commercial trips (n=3,249) harvesting snowy grouper by bin from 2016 through 2019. Source: SEFSC commercial logbook [May 6, 2021].

**Table 9.** The predicted percent change in snowy grouper commercial landings per trip from reductions in the current 200-lb gw trip limit.

Current Trip Limit (lbs gw)	Potential Trip Limit (lbs gw)	Predicted Change in Landings
200-lb	150-lb	-16%
200-lb	100-lb	-38%

#### Snapper Grouper AP Comments/Recommendations :

##### Feedback:

- More recreational effort noticed in certain areas.
- Cryptic population on snowy wrecks needs to be examined.
- Trip limits need enforcement to be effective.

##### AP Recommendations:

- The AP would like to try to keep fishery open as long as possible, modify trip limits to reduce effort.

- There was concern that a trip limit reduction may not make the trip to snowy depths worth it.
- The AP prefers the 200 lbs trip limit.

**PREVIOUS COUNCIL DIRECTION TO STAFF:** Include 150 lbs and 100 lbs gw options OR consideration of a commercial spawning season closure under Action 3 for AP discussion.

### Options:

**Table 10.** A summary of options for Action 3.

Option	Trip Limit
Option 1 (no change)	200 lbs gw
Option 2	150 lbs gw
Option 3	100 lbs gw

### Preliminary Analysis:

- An analysis of the effects of the commercial trip limit reduction to the commercial season length was conducted for each allocation option. For Action 2 Option 1, an approximately 4-month season is predicted for the 200 and 150 lbs gw trip limit for season 1. For the 100 lbs gw trip limit, an approximately 6-month season is expected. For season 2 under this alternative an approximately 2-, 3-, and 4-month season are predicted for the 200, 150, and 100 lbs gw trip limits respectively.
- For Action 2 Option 2, an approximately 4-, 5-, and 6-month season was predicted for the 200, 150, and 100 lbs gw trip limit respectively for season 1. For season two an approximately 2-, 3-, and 4-month season are predicted for the 200, 150, and 100 lbs gw trip limits respectively.
- For Action 2 Option 3, both the 200 and 150 lbs gw trip limits are predicted to result in a 4-month season while the 100 lbs trip limit is predicted to result in a 5-month season for season 1. For season 2, the 200 and 150 lbs gw trip limit would result in a predicted season length of 2-months while the 100 lbs gw trip limit would lead to an approximately 3-month season.

**Table 10.** The projected closure dates in 2023 with each commercial ACL option for snowy grouper by season with different trip limit options and 95% confidence interval (CI). Note that 70% of the ACL is allocated to the January through June season and 30% to the July through December season and the ACL will increase from 2023 through 2026 when it will remain the same.

<b>Action 2 Sector ACL Option 1: Commercial ACL= 99,562 lbs gw (83% of total ACL)</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	69,693	200	April 15	Apr 2 – May 1
January 1 – June 30	69,693	150	April 29	Apr 15 – May 20
January 1 – June 30	69,693	100	June 3	May 14 – No Closure
July 1 – December 31	29,869	200	August 20	Aug 8 – Sep 29
July 1 – December 31	29,869	150	September 3	Aug 16 – Dec 2
July 1 – December 31	29,869	100	October 8	Sep 4 – No Closure
<b>Action 2 Sector ACL Option 2: Commercial ACL= 109,038 lbs gw (87.55% of total ACL)</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	76,327	200	April 22	Apr 8 – May 11
January 1 – June 30	76,327	150	May 8	Apr 23 – May 31
January 1 – June 30	76,327	100	June 16	May 25 – No Closure
July 1 – December 31	32,711	200	August 27	Aug 12 – Oct 17
July 1 – December 31	32,711	150	September 11	Aug 21 – No Closure
July 1 – December 31	32,711	100	October 24	Sep 13 – No Closure
<b>Action 2 Sector ACL Option 3: Commercial ACL= 88,046 lbs gw (73.36% of total ACL)</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	61,632	200	April 6	Mar 23 – Apr 21
January 1 – June 30	61,632	150	April 19	Apr 5 – May 6
January 1 – June 30	61,632	100	May 18	May 1 – Jun 12
July 1 – December 31	26,414	200	August 12	Aug 3 – Sep 14
July 1 – December 31	26,414	150	August 24	Aug 10 – Oct 8
July 1 – December 31	26,414	100	September 21	Aug 26 – No Closure

### Scoping Comments:

- Several comments opposed a reduction in commercial trip limit, noting that any trip limit under 200 lbs would not be worth the trip to depths where snowy are caught.
  - One commenter expressed that an earlier season closure would be preferable to a reduction in trip limit.
  - One comment suggested a trip limit step down to avoid complete closures.

### Committee Action:

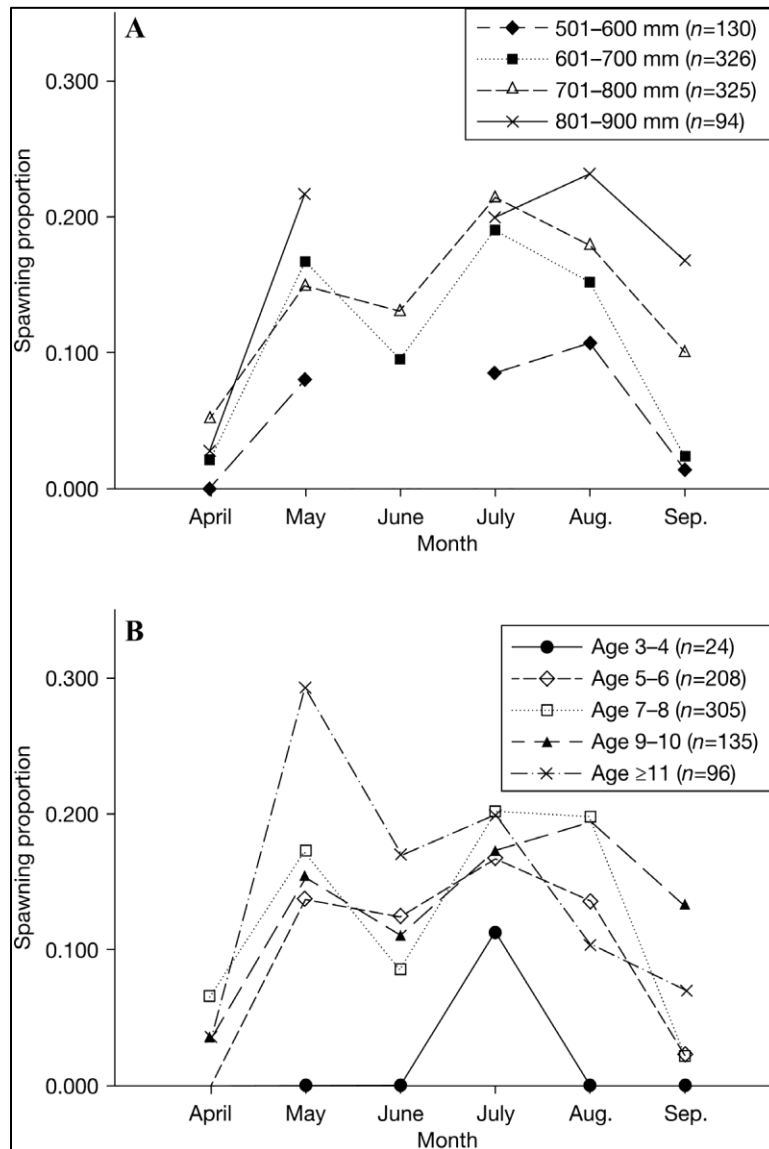
- REVIEW SCOPING COMMENTS PERTAINING TO THIS ACTION.
- REVIEW RANGE OF OPTIONS AND MODIFY AS NEEDED.

#### **4. Establish a commercial spawning season closure**

##### **Background:**

- A spawning season closure could be considered to allow snowy grouper an increased chance of spawning before they may be harvested and decrease fishing pressure on snowy grouper when they are spawning.
- Farmer et al. (2017) noted that snowy grouper spawn from January through October. The authors considered peak spawning (based on gonadosomatic index) to occur May through August.
- Kolmos et al. (2019) noted that spawning across sizes and ages increased May through August.

**Figure 4.** Spawning proportion by month. Source: Kolmos et al. (2019)



**Snapper Grouper AP Comments/Recommendations :**

**Feedback:**

- April and May are important times for snowy when shallow water grouper are closed.
- Snowy grouper is often a “top-off” species, keeping them open early in the year is crucial, if there is a spawning closure it would be better to have it later in the year.
- May need to consider geographical changes in spawning.

**AP Recommendations:**

- Prefer a spawning closure to retain the current 200 lbs trip limit.



- Modify recreational season so it does not coincide with peak spawning.

### **Scoping Comments:**

- One comment was in favor of closing the commercial fishery during peak spawning months while another suggested modifying the season to correspond with seasons of similar deepwater species and shorten if required.
- Other comments opposed any commercial season modifications.

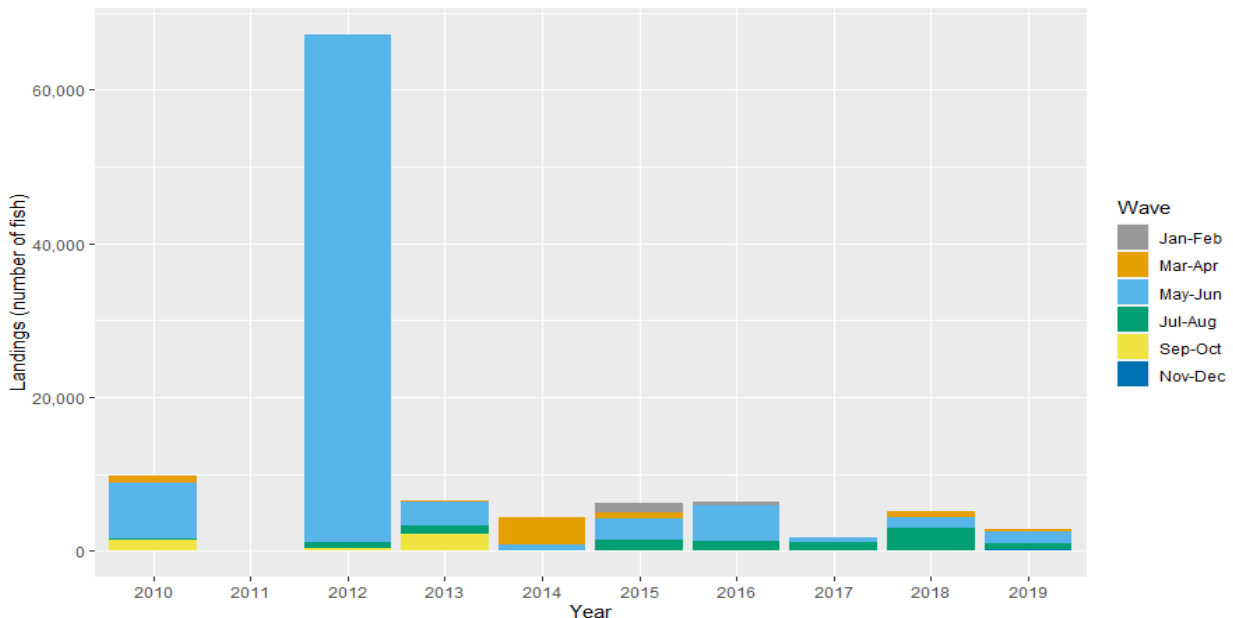
### **Committee Action:**

- REVIEW SCOPING COMMENTS.
- PROVIDE GUIDANCE ON RANGE OF OPTIONS TO DEVELOP.
  - WOULD THE COUNCIL LIKE TO HAVE AN ACTION IN THIS AMENDMENT THAT CONSIDERS A SPAWNING SEASON CLOSURE?
  - IF SO, WHAT OPTIONS SHOULD THE IPT ANALYZE?

## 5. Modify the recreational season

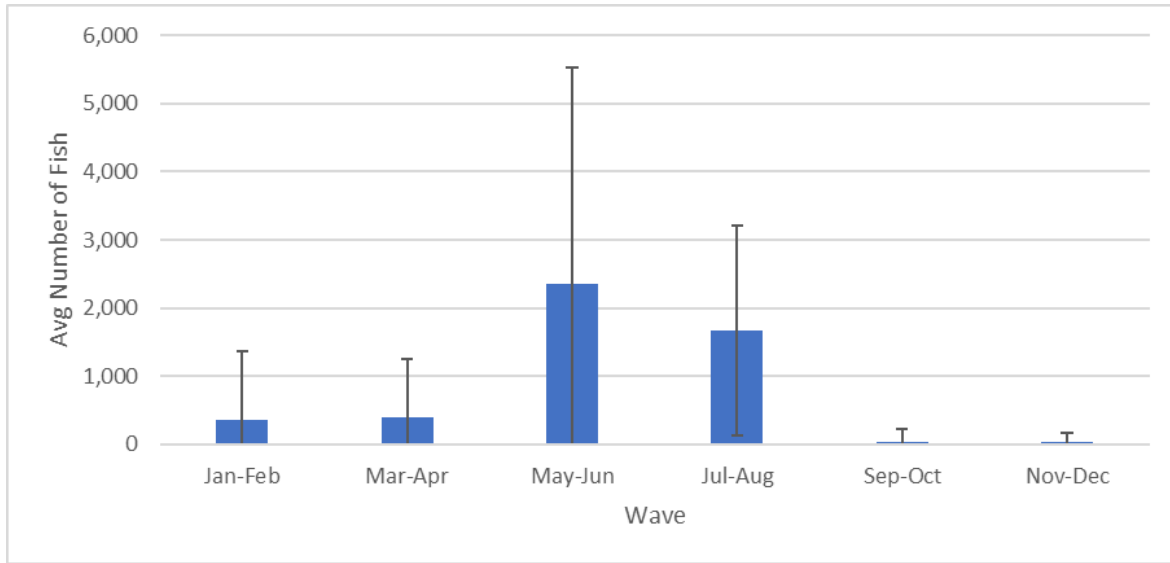
### Background:

- The current recreational season for snowy grouper is May 1<sup>st</sup> through August 31<sup>st</sup> and recreational harvest is limited to one snowy grouper per vessel per day.
- The annual recreational landings of snowy grouper have been less than 10,000 fish every year from 2010 to 2019 except 2012 when landings were over 60,000 fish<sup>1</sup>.
  - Charter and private recreational trips (estimated through MRIP) averaged 89% of the total recreational landings over the ten-year timeframe.
  - Recreational landings of snowy grouper from 2010 to 2019 tended to be highest in May - June (wave 3) or July - August (wave 4) (**Figure 5**, 2011 included a deepwater closure for part of the year).
  - From 2015 to 2019, the average landings were highest during the snowy grouper recreational fishing season May through August (**Figure 6, Table 12**).
  - Landings were reported in January through April and most of these landings (55%) occurred in 2015, prior to the season being enacted.



**Figure 5.** Recreational landings of snowy grouper (number of fish) by year and wave from 2010 to 2019 for the South Atlantic region. Landings include trips reported from Key West, FL up to the Virginia/North Carolina border.

<sup>1</sup> Note that the SERO ACL Monitoring webpage does not include snowy grouper landings from Monroe County, FL which were included in the landings stream as part of SEDAR 36 (2013) and SEDAR 36 Update (2020).



**Figure 6.** Average number of snowy grouper landed in recreational sector by wave from the South Atlantic from 2015 to 2019. The landings included trips reported from Monroe County, FL. Blue bars represent the average landings and lines represent the 95% confidence interval.

**Preliminary Analysis:**

- An analysis of the recreational season was conducted to predict the season length for each allocation scenario. The average number of snowy grouper landed from 2015-2019 per wave was used to compare to the new recreational ACL. For Action 2, Option 1 the season was predicted to last approximately 1 wave (currently the season lasts two waves). For Action 2 Option 2 the season was predicted to last less than one wave and for Action 2 Option 3 the season was predicted to last slightly less than 2 waves.

**Table 11.** Average number of snowy grouper landed by the recreational sector by wave from the South Atlantic from 2015 to 2019. The landings included trips reported from Monroe County, FL. The confidence interval was developed based on the standard deviation of the five years.

Wave	Average	Confidence Interval	Average Number Per Month
Jan-Feb	351	0 - 1,372	175.5
Mar-Apr	395	0 - 1,256	197.5
<b>May-Jun</b>	<b>2,354</b>	<b>0 - 5,520</b>	<b>1,177.0</b>
<b>Jul-Aug</b>	<b>1,674</b>	<b>138 - 3,210</b>	<b>837.0</b>
Sep-Oct	45	0 - 230	22.5
Nov-Dec	30	0 - 163	15.0

- Based on the landings in **Table 11**, the following recreational season lengths would be predicted under the proposed reduced recreational ACL:

**Table 12.** The predicted recreational season length based on landings from 2015-2019 for each potential allocation scenario and the current recreational season of May 1<sup>st</sup> – August 31st. Allocations percentages applied to total ACL=ABC (Option 2 in Action 1).

Note: the current recreational season is shown as 2 waves in table 12.

Year	Recreational Allocation	Recreational ACL (numbers of fish)	Predicted Season Length*
<b>Action 2 Sector ACL Option 1 (No Action)</b>			
2023	17%	2,284	~ 1 wave
2024		2,309	~ 1 wave
2025		2,339	~ 1 wave
2026		2,339	~ 1 wave
<b>Action 2 Sector ACL Option 2</b>			
2023	12.45%	1,679	< 1 wave
2024		1,698	< 1 wave
2025		1,720	< 1 wave
2026		1,720	< 1 wave
<b>Action 2 Sector ACL Option 3</b>			
2023	26.64%	3,573	< 2 waves
2024		3,612	< 2 waves
2025		3,661	< 2 waves
2026		3,661	< 2 waves

- Currently:
  - The season occurs during peak spawning months (May through August).
  - The current season was established through Regulatory Amendment 20 (2015). It was noted in this amendment that most recreational landings, particularly Monroe County landings occurred in May or June.
  - This season was established mainly to reduce the recreational harvest below the ACL since years leading up to this amendment exceeded this level.
  - Aimed to account for the targeting of co-occurring species (mainly blueline tilefish) during a recreational closure.
- Changing the snowy grouper recreational fishing may affect the recreational blueline tilefish season. The current blueline tilefish season is May 1 – August 31 which was established during Amendment 32 (2015). Blueline tilefish are one of the most commonly caught species when catching (**Table 13**), discarding (**Table 14**), and harvesting (**Table 15**) snowy grouper.

**Table 13.** Top ten species caught on trips that caught snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which recorded 57 trips that caught snowy grouper. This includes both discard and harvest snowy grouper trips.

Species	Number of Trips
Dolphin	26
Blueline Tilefish	19
Black Sea Bass	10
Greater Amberjack	10
Blackfin Tuna	7
Gray Triggerfish	7
Almaco Jack	6
Wahoo	6
Yellowedge Grouper	6
Blackbelly Rosefish	5

**Table 14.** Top five species caught on trips that discarded snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which recorded 10 trips that discarded snowy grouper.

Species	Number of Trips
Yellowedge Grouper	1
Red Snapper	1
Black Sea Bass	1
Unidentified Shark	1
Bluefish	1

**Table 15.** Top ten species caught on trips that harvested snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which recorded 47 trips that released snowy grouper.

Species	Number of Trips
Dolphin	26
Blueline Tilefish	19
Black Sea Bass	10
Greater Amberjack	9
Blackfin Tuna	7
Gray Triggerfish	7
Almaco Jack	6
Wahoo	6
Yellowedge Grouper	5
Blackbelly Rosefish	5

- The Council started discussions of modifying the recreational season after considering a commercial spawning season closure to increase the stock's chance of spawning but realized

that the commercial spawning season closure may not be effective if there is still fishing pressure during spawning from the recreational sector.

## **Snapper Grouper AP Comments/Recommendations :**

### **Feedback:**

- The AP noted there is a state snowy fishery off South Florida.
  - Very accessible in FL due to technology and distance offshore.
- Recreational effort increasing as technology advances.
- Citizen science could help provide data on participation.
- Recreational season is when charter parties are interested in fishing due to good weather.
- The current charter reporting data needs to be examined if need be.
- Discard mortality is a concern for this species. Bag limit controls trip length.
  - Day saver species

### **AP Recommendations:**

- Stamp/permit needed (private recreational only).
- Snowy grouper needs a census due to low intercepts.

**PREVIOUS COUNCIL DIRECTION TO STAFF:** Have the AP discuss any other recreational management measures other than a stamp/endorsement program, which is being considered along with recommendations from the Private Recreational Reporting Working Group.

## **Scoping Comments:**

- Two comments were received that suggested gear restrictions that could reduce dead discards, particularly when fishing for other deepwater species at the same time as snowy grouper.
- One commenter felt that the recreational bag limit should be increased since the fishery is often catching more than one fish at a time.
  - 1 fish/person/day
- Two comments noted that there is a need for increased recreational oversight, suggesting the Council establish a recreational permit.

## **Committee Action:**

- REVIEW SCOPING COMMENTS.
- PROVIDE GUIDANCE ON RANGE OF OPTIONS TO DEVELOP.

## 6. Modify snowy grouper recreational accountability measures

### Background:

- Modifications to the recreational accountability measures could be considered to separate commercial and recreational accountability measure triggers and establish a viable accountability measure for the recreational sector.
- Snowy grouper currently has a recreational in-season accountability measure; however, this is not effective for constraining recreational landings to the ACL due to the relatively short season length and the timeliness of recreational data availability.

### Snapper Grouper AP Comments/Recommendations :

#### Feedback:

- Commercial also has reporting accountability tied to the permit. Both sectors should have functioning in-season closures.

#### AP Recommendations

- The AP would like to keep the current triggers for the AM in place due to small recreational landings.
- Possibly reallocate recreational underage to the commercial sector in the following year, looking for equity between the sectors.
- Adding additional recreational AM restrictions is not advised by the AP.

**PREVIOUS COUNCIL DIRECTION TO STAFF:** Review the recreational post-season accountability measures.

### Options:

**Table 16.** A summary of accountability measures within each option for Action 6

	In-Season AM		Post Season AM	
	Triggers	AM	Triggers	AM
<b>Option 1 (no action)</b>	Recreational landings reach/projected to reach recreational ACL	Current recreational season closes	<ul style="list-style-type: none"> <li>• Recreational landings exceed recreational ACL</li> <li>• Total ACL exceeded</li> <li>• Stock is overfished</li> </ul> <p><i>*All 3 must occur for AM to take effect</i></p>	<ul style="list-style-type: none"> <li>• Recreational ACL for the following year reduced by the recreational overage</li> <li>• Recreational season for the following year is reduced by the amount of the recreational overage</li> </ul>
<b>Option 2</b>	NMFS will annually announce the recreational fishing season start and end dates			
<b>Option 3</b>	NONE		Recreational landings exceed recreational ACL	Recreational season for the following year is reduced by the amount necessary to prevent the recreational ACL from being exceeded

**Scoping Comments:**

- One commenter stressed the importance of recreational accountability measures for the snowy fishery.

**Committee Action:**

- PROVIDE GUIDANCE ON RANGE OF OPTIONS TO DEVELOP.



## Literature Cited

Heyman, W. D., Grüss, A., Biggs, C. R., Kobara, S., Farmer, N. A., Karnauskas, M., Lowerre-Barbieri, S., & Erisman, B. (2019). Cooperative Monitoring, assessment, and management of fish spawning aggregations and associated fisheries in the U.S. Gulf of Mexico. *Marine Policy*, *109*, 103689. <https://doi.org/10.1016/j.marpol.2019.103689>

Kolmos, K., Wyanski, D., White, B., & Mikell, P. P. (2019). Temporal changes in the life history of Snowy Grouper (*Hyporthodus niveatus*) off North and South Carolina, and factors that influence spawning dynamics. *Fishery Bulletin*, *117*(4), 308–321. <https://doi.org/10.7755/fb.117.4.4> Appendix

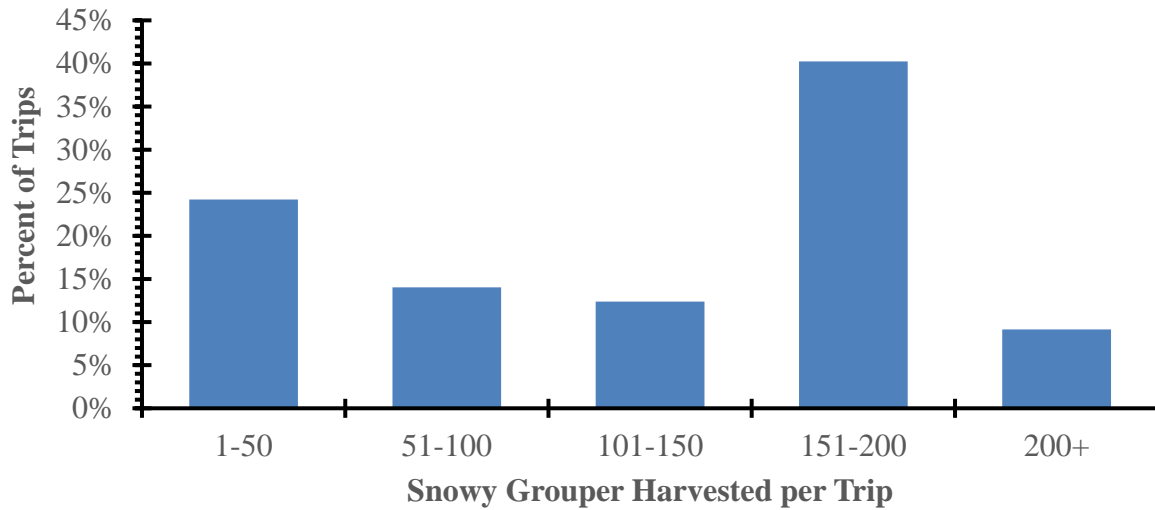
# Appendix

## I. Commercial ACL Analysis

Preliminary analyses are for the 2023 potential commercial annual catch limit (ACL) of 99,562 pounds (lbs) gutted weight (gw) with the current allocation (83% commercial and 17% recreational).

### *Commercial Trip Limits*

The Southeast Fisheries Science Center (SEFSC) commercial logbook data (5/6/21) was used to examine trip limits in the South Atlantic snowy grouper commercial fishery. Currently, the fishery has a 200-lb gw trip limit that was implemented in August 2015. From 2016 through 2019, the commercial logbook had 3,249 trips recorded that harvested snowy grouper in the South Atlantic. Greater than 40% of the trips harvesting snowy grouper are estimated to have landed between 151 through 200 lbs gw (**Figure A-1**). Trips estimated to have harvested greater than 200 lbs gw were normalized to 200 lbs gw when estimating potential trip limit reductions. Estimated reductions from projected landings for potential trip limits are shown in **Table A-1**.



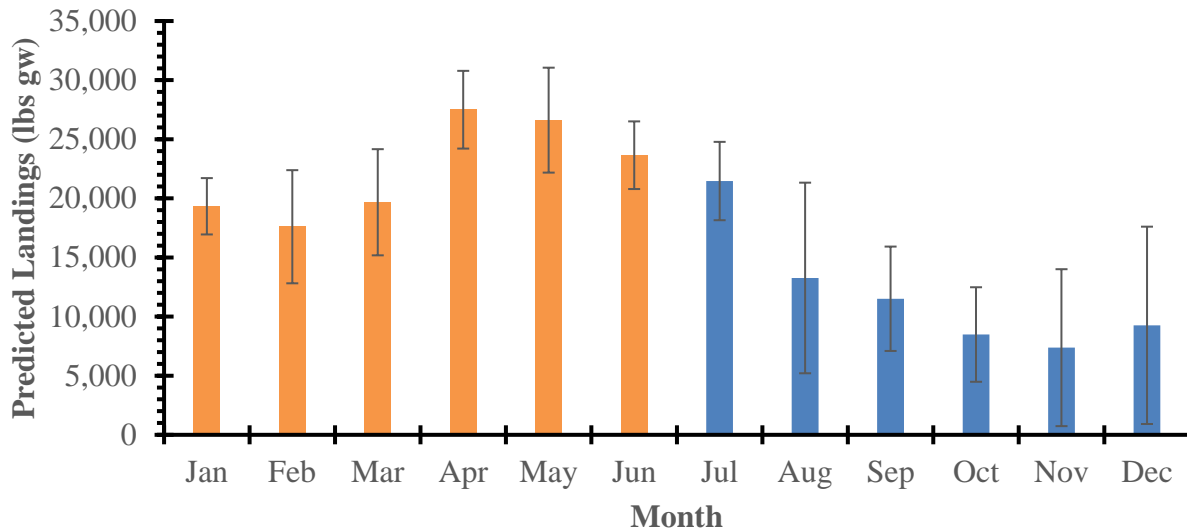
**Figure A-1.** The percent of commercial trips (n=3,249) harvesting snowy grouper by bin from 2016 through 2019. Source: SEFSC commercial logbook [May 6, 2021].

**Table A-1.** The predicted percent change in landings per trip from the current 200-lb gw trip limit.

Current Trip Limit (lbs gw)	Potential Trip Limit (lbs gw)	Predicted Change in Landings
200-lb	150-lb	-16%
200-lb	100-lb	-38%

### *Commercial Season Length*

Landings for South Atlantic snowy grouper were obtained from the SEFSC commercial ACL file (4/5/21). Future landings were predicted by taking an average of the most recent three years of data for each month, as the most recent data are believed to be the best approximation of future harvest (**Figure A-2**). Due to fishery closures in recent years, it was necessary to go back to 2010 for some monthly landings later in the calendar year. All monthly landings prior to August 2015 (when the trip limit was increased from 100 to 200-lb gw) were adjusted using to account for the management change. For months with a closure that had the fishery open for the majority of the days, the landings were expanded using the ratio of total days in the month to those when the fishery was open. Season lengths were projected using daily catch rates with upper and lower 95% confidence intervals with the different trip limit options (**Table A-2**).



**Figure A-2.** The predicted monthly snowy grouper landings (lbs gw) based on current trip limits with 95% confidence interval. Source: SEFSC commercial ACL file [April 5, 2021].

**Table A-2.** The projected 2023 closure dates with an ACL of 99,562 lbs gw for snowy grouper by season with different trip limit options and 95% confidence interval (CI). Note that 70% of the ACL is allocated to the January through June season and 30% to the July through December season.

Season	ACL (lbs gw)	Trip Limit (gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	69,693	200-lb	April 15	Apr 2 – May 1
January 1 – June 30	69,693	150-lb	April 29	Apr 15 – May 19
January 1 – June 30	69,693	100-lb	June 3	May 14 – No Closure
July 1 – December 31	29,869	200-lb	August 20	Aug 8 – Sep 28
July 1 – December 31	29,869	150-lb	September 2	Aug 16 – Nov 21
July 1 – December 31	29,869	100-lb	October 8	Sep 5 – No Closure

## Commercial Season Closure Analysis for the Snowy Grouper Fishery

Alisha Gray; November 12, 2021

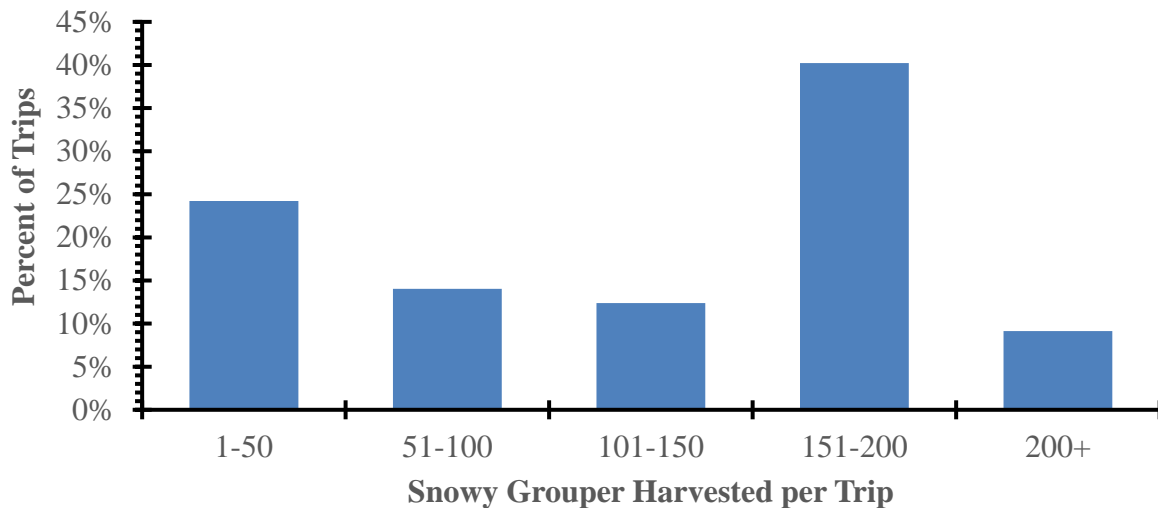
LAPP/DM Branch

Southeast Regional Office

The South Atlantic Fishery Management Council (SAFMC) manages snowy grouper in South Atlantic federal waters under the Snapper Grouper Fishery Management Plan (Snapper Grouper FMP). Amendment 51 to the Snapper Grouper FMP proposes to adjust catch levels (annual catch limits), and revise sector allocations. This analysis investigates when the commercial sector will be expected to close under the proposed ACL and sector allocation changes using observed landings in pounds (lb) gutted weight (ww) between 2015 and 2019.

### *Commercial Trip Limits*

The Southeast Fisheries Science Center (SEFSC) commercial logbook data (5/6/21) was used to examine trip limits in the South Atlantic snowy grouper commercial fishery. Currently, the fishery has a 200-lb gw trip limit that was implemented in August 2015. From 2016 through 2019, the commercial logbook had 3,249 trips recorded that harvested snowy grouper in the South Atlantic. Greater than 40% of the trips harvesting snowy grouper are estimated to have landed between 151 through 200 lbs gw (**Figure A-3**). Trips estimated to have harvested greater than 200 lbs gw were normalized to 200 lbs gw when estimating potential trip limit reductions. Estimated reductions from projected landings for potential trip limits are shown in **Table A-3**.



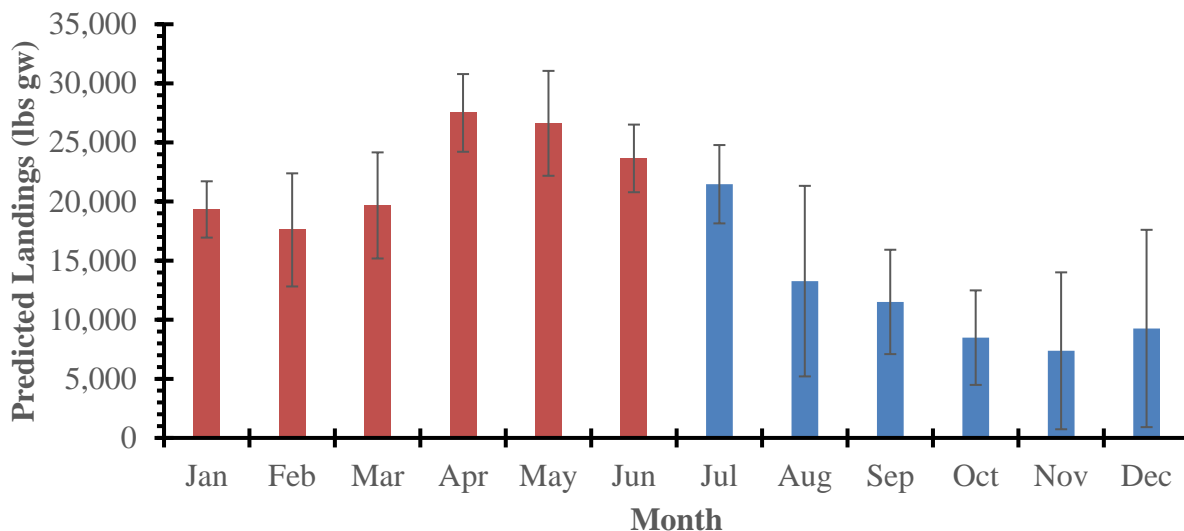
**Figure A-3.** The percent of commercial trips (n=3,249) harvesting snowy grouper by bin from 2016 through 2019. Source: SEFSC commercial logbook [May 6, 2021].

**Table A-3.** The predicted percent change in landings per trip from the current 200-lb gw trip limit.

Current Trip Limit (lbs gw)	Potential Trip Limit (lbs gw)	Predicted Change in Landings
200-lb	150-lb	-16%
200-lb	100-lb	-38%

*Commercial Season Length*

Final commercial landings for 2010 through 2020 were provided from the Southeast Fisheries Science Center (SEFSC) on September 29, 2021. Monthly South Atlantic commercial snowy grouper landings were averaged from 2017 through 2019 to project future landings for January through May months. Due to fishery closures in months June through December in recent years, it was necessary to go back to 2010 for some monthly landings later in the calendar year. All monthly landings prior to August 2015 (when the trip limit was increased from 100 to 200-lb gw) were adjusted to account for the management change. For months with a closure that had the fishery open for the majority of the days, the landings were expanded using the ratio of total days in the month to those when the fishery was open. Changes to the commercial fishing year in response to regulatory amendment 27 are assumed to have minimal impact on monthly fishing behavior, and no additional adjustments were made to monthly landings to project future landings. Predicted landings are presented in **Figure A-4**. Season lengths were projected using daily catch rates with upper and lower 95% confidence intervals with the different trip limit options (**Table A-4**).



**Figure A-4.** The predicted monthly snowy grouper landings (lbs gw) based on current trip limits with 95% confidence interval. Source: SEFSC commercial ACL file [September 29, 2021].

**Table A-4.** The projected closure dates with each ACL option for snowy grouper by season with different trip limit options and 95% confidence interval (CI). Note that 70% of the ACL is allocated to the January through June season and 30% to the July through December season.

<b>Option 1: 83% ACL= 99,562 lbs gw</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	69,693	200	April 15	Apr 2 – May 1
January 1 – June 30	69,693	150	April 29	Apr 15 – May 20
January 1 – June 30	69,693	100	June 3	May 14 – No Closure
July 1 – December 31	29,869	200	August 20	Aug 8 – Sep 29
July 1 – December 31	29,869	150	September 3	Aug 16 – Dec 2
July 1 – December 31	29,869	100	October 8	Sep 4 – No Closure
<b>Option 2: 87.55% ACL= 109,038 lbs gw</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	76,327	200	April 22	Apr 8 – May 11
January 1 – June 30	76,327	150	May 8	Apr 23 – May 31
January 1 – June 30	76,327	100	June 16	May 25 – No Closure
July 1 – December 31	32,711	200	August 27	Aug 12 – Oct 17
July 1 – December 31	32,711	150	September 11	Aug 21 – No Closure
July 1 – December 31	32,711	100	October 24	Sep 13 – No Closure
<b>Option 3: 73.36% ACL= 88,046 lbs gw</b>				
Season	ACL (lbs gw)	Trip Limit (lbs gw)	Closure Date	Season Length (95% CI)
January 1 – June 30	61,632	200	April 6	Mar 23 – Apr 21
January 1 – June 30	61,632	150	April 19	Apr 5 – May 6
January 1 – June 30	61,632	100	May 18	May 1 – Jun 12
July 1 – December 31	26,414	200	August 12	Aug 3 – Sep 14
July 1 – December 31	26,414	150	August 24	Aug 10 – Oct 8
July 1 – December 31	26,414	100	September 21	Aug 26 – No Closure

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.

## II. Recreational ACL Analysis

Landings data match landings data included in SEDAR 36 Update working paper 2020–S36Update–WP01 and were similar to the FES monitoring file (MRIP\_FES\_rec81\_21wv1\_11May21w2014\_2020LACreel).

### *Data*

Marine Recreational Information Program (MRIP) samples included trips that landed from North Carolina through the Florida Keys as reported in SEDAR 36 Update. The raw intercept data files were downloaded from the MRIP webpage and included trips for sub-region 6 (South Atlantic) plus Monroe County (State =Florida and County = Monroe). Data available included trips back to 1981. Headboat from the Southeast Region Headboat Survey (SRHS) are available to 1974 and were provided by the survey staff. MRIP landings data match landings data included in SEDAR 36 Update working paper 2020–S36Update–WP01 (Matter and Nuttall 2020) and total recreational landings were similar (within 20 fish each year) to the FES monitoring file (MRIP\_FES\_rec81\_21wv1\_11May21w2014\_2020LACreel).

The IPT suggested the recreational seasonal analysis should include data from 2015 to 2019. This time period matches a regulation change in the fishery when the ACL increased from 521 fish and season was shortened to May through August. Data going back to 2010 were reviewed to see if dramatic shifts occurred in the seasonality of the catch due to the recreational season established in 2015.

The analysis included trips for Monroe County, FL where regulations differ between South Atlantic and Gulf of Mexico. Some of these trips may have been conducted in the Gulf of Mexico waters, where snowy grouper is included in a 4 grouper aggregate per person. The bag limit for the South Atlantic is one per vessel. It appears the trips were included in the assessment based on comparison of the data set used for this analysis and Table 1 from the SEDAR 36 Update Assessment working paper on recreational data (Matter and Nuttall 2020). Therefore, these trips were included in the seasonal analysis even though changes to SAFMC regulations would not change the landings of Snowy Grouper on the trips.

### *Review of Recreational Data Available for Snowy Grouper*

Data on recreational trips were limited for Snowy Grouper. On average, 16 MRIP (private and charter boat combined) trips per year (min = 11 and max = 21) were sampled with Snowy Grouper landings and 18 headboat trips (min=8 and max = 33) reported landings of Snowy Grouper from 2015 to 2019. Due to the low sample size and high variability (relative) in landings, any seasonal analysis will have a high degree of uncertainty.

### *Analysis*

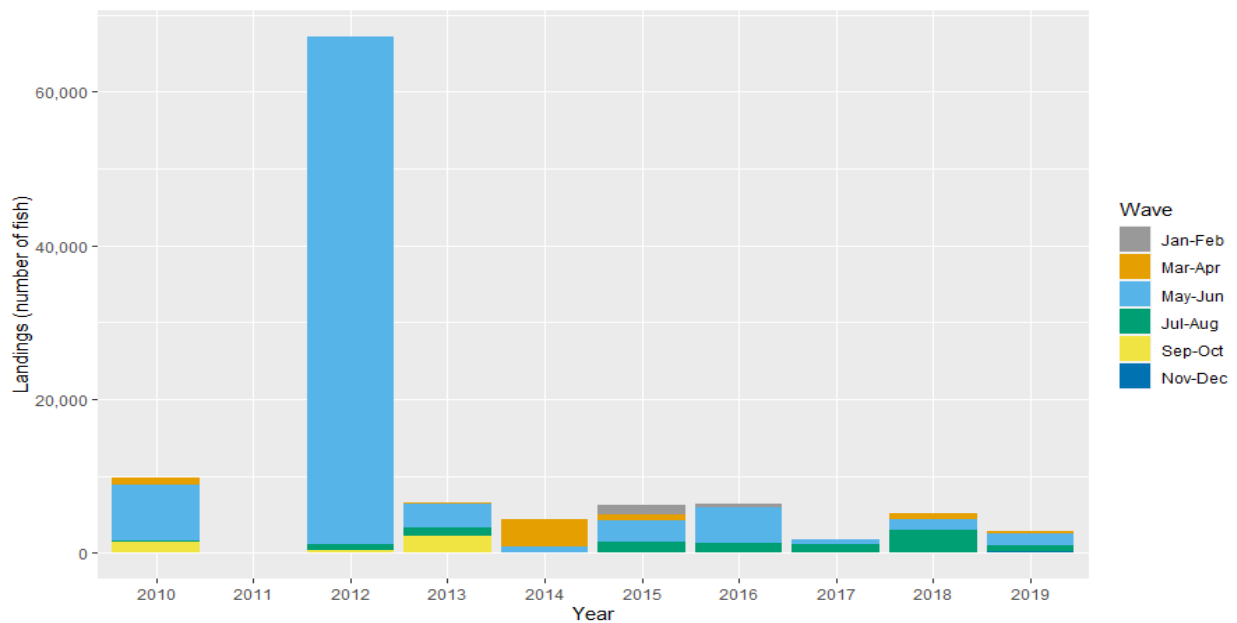
Recreational data from private recreational vessel, charter boats, and headboats were summed up by wave and year from 2015 to 2019. Mean landings were calculated by wave. Confidence intervals were calculated as mean +/- 1.96 \*standard deviation. A minimum value of 0 was used for confidence interval estimates that were less than zero.

## Results

The annual recreational landings of Snowy Grouper have been less than 10,000 fish every year from 2010 to 2019 except 2012 when landings were over 60,000 fish. Charter and private recreational trips (estimated through MRIP) averaged 89% of the total recreational landings over the ten-year timeframe. Snowy Grouper were only observed through MRIP from trips that landed in North Carolina and Florida and most observations by SRHS occurred in North Carolina and Florida from 2010 to 2019. Snowy Grouper have not been observed through MRIP from trips the landed in Georgia since 1993 and South Carolina since 1982.

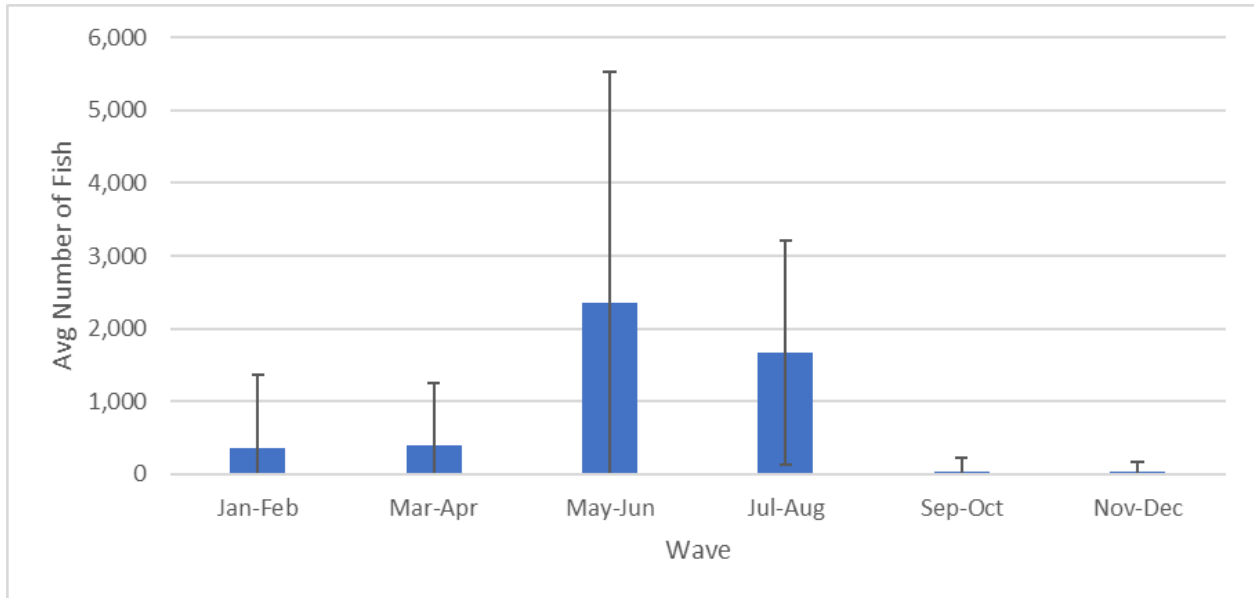
Recreational landings of Snowy Grouper from 2010 to 2019 tended to be highest in May - June wave or July - August wave (**Figure A-5**, 2011 included a deepwater closure for part of the year). There were rarely landings from November through February. Prior to the establishment of the recreational season for Snowy Grouper (2015), landings were most common in May through August but were reported in the March – April wave and September – October wave. From 2015 to 2019, the average landings were highest during the Snowy Grouper recreational fishing season May through August (**Figure A-6, Table A-5**). Landings were reported in January through April and most of these landings (55%) occurred in 2015, prior to the season being enacted.

There are extremely large confidence intervals based on the standard deviations. This indicates there will be significant uncertainty in estimating any impact from changing the recreational season. The confidence interval for all waves except wave 4 (July – August) are set to a minimum of zero to avoid negative numbers (**Table A-5**).





**Figure A-5.** Recreational landings of Snowy Grouper (number of fish) by year and wave from 2010 to 2019 for the South Atlantic region. Landings include trips reported from Key West, FL up to the Virginia and North Carolina border.



**Figure A-6.** Average number of Snowy Grouper landed in recreational sector by wave from the South Atlantic from 2015 to 2019. The landings included trips reported from Monroe County, FL. Blue bars represent the average landings and lines represent the 95% confidence interval.

**Table A-5.** Average number of Snowy Grouper landed by the recreational sector by wave from the South Atlantic from 2015 to 2019. The landings included trips reported from Monroe County, FL. The confidence interval was developed based on the standard deviation of the five years.

Wave	Average	Confidence Interval	Avg Number Per Month
Jan-Feb	351	0 - 1,372	175.5
Mar-Apr	395	0 - 1,256	197.5
May-Jun	2,354	0 - 5,520	1,177.0
Jul-Aug	1,674	138 - 3,210	837.0
Sep-Oct	45	0 - 230	22.5
Nov-Dec	30	0 - 163	15.0

**Literature Cited**

Matter, Vivian M. and Matthew A. Nuttall. 2020. Recreational Survey Data for Snowy Grouper in the South Atlantic. 2020-SEDAR36U-WP01. SEDAR, North Charleston, SC. 21 pp

### Appendix III. Management History

**Table A-6.** The previous management measures and catch levels for South Atlantic snowy grouper.

Management Measures	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
ABC (lbs gw)	87,254	87,254	87,254	139,098	151,518	163,109	173,873	185,464	185,464	185,464	185,464
Total ACL (lbs gw)	87,254	87,254	87,254	139,098	151,518	163,109	173,873	185,464	185,464	185,464	185,464
Total Landings (lbs gw)										TBD	TBD
Total ACL Overage/Underage				134%	149%	92%	101%	94%	91%	TBD	TBD
Com. ACL (lbs gw)	82,900	82,900	82,900	115,451	125,760	135,380	144,315	153,935	153,935 (107,754/ 46,181)	153,935 (107,754/ 46,181)	TBD
Com. Landings (lbs gw)	89,148	79,829	94,031	130,088	149,385	135,825	146,874	151,889	154,753	(91,092/ TBD)	TBD
Com. Overage/Underage (%)	107.5%	96.3%	113.4%	112.7%	118.8%	100.3%	101.8%	105.2%	100.5%	TBD	TBD
Rec. ACL (lbs gw)				23,647	25,758	27,729	29,558	31,529	31,529	31,529	31,529
Rec. ACL (numbers of fish)	523	523	523	4,152	4,483	4,819	4,983	4,983	4,983	5,315	5,315
Rec. Landings, "Old" MRIP (numbers of fish)	2,065	2,048	1,214	1,621	9,746	1,834	2,766	1,946	1,309	770	TBD
Rec. Overage/Underage	395%	392%	232%	39%	217%	38%	56%	39%	26%	14%	TBD
Rec. Bag Limit	1/person/day	1/person/day	1/person/day	1/vessel/day	1/vessel/day	1/vessel/day	1/vessel/day	1/vessel/day	1/vessel/day	1/vessel/day	TBD
Rec. Season	calendar year	calendar year	calendar year	May - Aug	May - Aug	May - Aug	May - Aug	May - Aug	May - Aug	May - Aug	TBD
Rec Allocation	5%	5%	5%	17%	17%	17%	17%	17%	17%	17%	TBD
Com. Trip Limit (lbs gw)	100	100	100	200	200	200	200	200	200	200	TBD
Com. Season	calendar year	calendar year	calendar year	calendar year	calendar year	calendar year	calendar year	calendar year	calendar year	calendar year (season)	TBD

									1/season 2)		
<b>Com. Allocations</b>	95%	95%	95%	83%	83%	83%	83%	83%	83%	TBD	TBD

## Appendix IV. CFR Recreational Accountability Measures

- If recreational landings for snowy grouper, as estimated by the SRD, reach or are projected to reach the recreational ACL, the AA will file a notification with the Office of the Federal Register to close the recreational sector for the remainder of the fishing year regardless if the stock is overfished, unless NMFS determines that no closure is necessary based on the best scientific information available. On and after the effective date of such notification, the bag and possession limits for snowy grouper in or from the South Atlantic EEZ are zero.
- If recreational landings for snowy grouper, as estimated by the SRD, exceed the recreational ACL, then during the following fishing year recreational landings will be monitored for a persistence in increased landings, and if necessary, the AA will file a notification with the Office of the Federal Register to reduce the length of the recreational fishing season and the recreational ACL by the amount of the recreational ACL overage, if snowy grouper are overfished based on the most recent Status of U.S. Fisheries Report to Congress, and if the combined commercial and recreational ACL specified in § 622.193(b)(1)(iii) is exceeded during the same fishing year. NMFS will use the best scientific information available to determine if reducing the length of the recreational fishing season and recreational ACL is necessary. When the recreational sector is closed as a result of NMFS reducing the length of the recreational fishing season and ACL, the bag and possession limits for snowy grouper in or from the South Atlantic EEZ are zero.

## Appendix IV. Co-Catch Analysis

### South Atlantic snowy grouper catch analysis for the recreational sector Mike Larkin

Amendment 51 to the Fishery Management Plan for the Snapper Grouper Fishery of the South Atlantic region (Amendment 51) is in the process of modifying regulations for South Atlantic snowy grouper. The South Atlantic Fishery Management Council members asked for an analysis of the species harvested and released with snowy grouper in the recreational sector in the South Atlantic. Snowy grouper recreational harvest and release information is collected in the South Atlantic region from two different recreational surveys: Marine Recreational Information Program (MRIP) and the Southeast Region Headboat Survey (Headboat). South Atlantic snowy grouper MRIP discard and harvest data from 2015 through 2019 was downloaded from the NOAA fisheries recreational landings website (fisheries.noaa.gov) in January of 2021. South Atlantic Headboat discard and harvest data was provided from the Southeast Fisheries Science Center in July of 2020.

The MRIP data resulted in 57 trips that either discarded or harvested snowy grouper. The species that were caught on these snowy grouper trips were isolated from looking at species caught on the same trip. Individual MRIP trips were defined by having the same trip identification code which is the MRIP variable called "ID\_CODE". The top ten species caught (discard and harvest) with snowy grouper on MRIP trips are show in Table 1. Ten of the 57 trips had snowy grouper that were discarded. The species caught on trips that discarded a snowy grouper are shown in Table 2. There were 47 MRIP trips that harvested snowy grouper and they are shown in Table 3.

**Table A-7.** Top ten species caught on trips that caught snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which had 57 trips that caught snowy grouper. This includes both discard and harvest snowy grouper trips.

Species	Number of Trips
Dolphin	26
Blueline Tilefish	19
Black Sea Bass	10
Greater Amberjack	10
Blackfin Tuna	7
Gray Triggerfish	7
Almaco Jack	6
Wahoo	6
Yellowedge Grouper	6
Blackbelly Rosefish	5

**Table A-8.** Top five species caught on trips that discarded snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which had 10 trips that discarded snowy grouper.

Species	Number of Trips
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Yellowedge Grouper	1
Red Snapper	1
Black Sea Bass	1
Unidentified Shark	1
Bluefish	1

**Table A-9.** Top ten species caught on trips that harvested snowy grouper in the South Atlantic region from 2015 to 2019. This data came from MRIP which had 47 trips that released snowy grouper.

Species	Number of Trips
Dolphin	26
Blueline Tilefish	19
Black Sea Bass	10
Greater Amberjack	9
Blackfin Tuna	7
Gray Triggerfish	7
Almaco Jack	6
Wahoo	6
Yellowedge Grouper	5
Blackbelly Rosefish	5

The Headboat data were explored and resulted in 79 trips that either discarded and/or harvested snowy grouper. The species that were caught on these snowy grouper trips were isolated from looking at species caught on the same trip. Individual Headboat trips were defined by having the same trip identification code which is the Headboat variable called “COLLECTION”. The top ten species caught (discard and harvest) with snowy grouper on these Headboat trips are shown in Table 4. Of the 79 trips there was only 1 trip where snowy grouper were discarded and this same trip also had a harvest of snowy grouper. The species caught on this one Headboat trip with a snowy grouper discard were vermilion snapper, king mackerel, and almaco jacks. All of the Headboat trips that caught snowy grouper also harvested snowy grouper, so the list of species caught with harvested snowy grouper are shown in Table 4.

**Table A-10.** Top ten species caught on trips that caught snowy grouper in the South Atlantic region from 2015 to 2019. This data came from Headboat which had 79 trips that caught snowy grouper. This includes both discard and harvest snowy grouper trips.

Species	Number of Trips
Blueline Tilefish	56
Almaco Jack	51
Mutton Snapper	43
Blackfin Tuna	43
Blackfin Snapper	40
Scamp	40
Queen Snapper	40

Red Grouper	37
Black Grouper	35
Dolphin	35