

SEDAR Process Changes and Identifying Key Stocks
SEDAR Committee
September 2024

BACKGROUND AND PRODUCTIVITY CHALLENGES

The SEDAR Steering Committee is considering significant procedural changes to address long standing assessment scheduling challenges related to the lack of resources to address regional assessment needs. Meeting regional demands for stock assessments, while simultaneously ensuring those assessments are thorough, include timely information, and are developed through a transparent process with stakeholder involvement is no small feat. Addressing this challenge is not a new topic; workload issues have existed since the first SEDAR Steering Committee meeting in 2003.

The SEDAR program has undergone continual changes and process revisions during its history as the SEDAR Steering Committee grappled with the “four T’s”: Throughput, Thoroughness, Transparency and Timeliness. While many of the changes were minor tweaks made in response to issues as they arose, others greatly changed how the program operated. Some of the more noteworthy procedural changes implemented to balance throughput with process expectations include acknowledgement of “update” assessments in 2004, implementing the “benchmark, standard, and update” categories in 2011, and adopting the “Research Track” approach in 2018.

None of these changes have resolved the inherent contradiction of the four T’s, and in fact overall throughput has declined in recent years under the Research Track approach. On the other hand, the demand for scientific information has only increased since SEDAR began. One reason for increased demand is changes in the Magnuson Act, in particular the 2006 reauthorization and subsequent National Standard revisions, that increased expectations for robust information to support management, peer reviews of scientific information, required management to annual catch limits, and extensive consideration of uncertainty in stock assessments.

The initial SEDAR documentation stated “SEDAR produces better assessments, not necessarily faster assessments”. While that met the primary need in 2002, today, in 2024, there is a need faster, or more timely, assessments. SEDAR was also not intended to be the sole source of assessment information. That began to shift over time as the MSA changed to require management supported by peer review science, but the various SEDAR process changes imposed over the years to increase throughput have not proven up to the task of fulfilling all the assessment needs of the three Councils that rely solely on SEDAR for their assessment needs. One reason SEDAR procedural changes have not succeeded in increasing productivity or timeliness is the data bottleneck. Providing data for assessments, and in particular processing age samples, has been repeatedly cited as the primary impediment to increasing assessment throughput and timeliness. Nonetheless, today there is a need for more assessment information to support science based management that can adapt to a changing environment.

PROPOSED SEDAR CHANGES

The SEFSC has proposed modifications to the SEDAR process to address throughput and timeliness, including an overarching goal to increase the net information available to support management (*SEDAR March 2024 A3*). Four key changes were proposed to improve SEDAR performance:

1. Eliminate the Research Track approach
2. Eliminate Assessment nomenclature and schedule “slots”
3. Identify and prioritize “Key Stocks”
4. Assess remaining stocks with less intensive approaches.

The Steering Committee discussed these proposed changes in March and July of 2024. In July of 2024 the Steering Committee supported eliminating the Research Track approach and shifting to identifying assessments simply as assessments without qualifying nomenclature such as “update” or “benchmark” for future scheduling. Dropping nomenclature would create what is analogous to an *a la carte* approach where project components (e.g., data workshop, peer review, working groups) are incorporated based on project needs. The Council’s SSC raised some concerns that eliminating nomenclature could make it difficult to plan for a project and ensure that key components are ultimately included. Details of these changes remain to be worked out and, as with any significant procedural change, challenges are expected to arise during implementation.

“Key Stocks” as used here would represent a small number of stocks that would be assessed on a regular basis through SEDAR. When presented to the SEDAR Steering Committee in July 2024, the throughput for South Atlantic was shown at two assessments per year, increasing to three in some years (*SEDAR July 2024 A3*). Additional stocks could be assessed with the “less intensive approaches” as shown in #4, but at this point the SEDAR Steering Committee has had no discussion of this point and it seems likely that such approaches could not include any age information. Meeting the goal of providing “net more information” will require data improvements and potentially changes in the accepted level of information required to support fishing level recommendations.

KEY STOCKS BACKGROUND

To keep these changes moving along, as a next step the Council will need to consider the concept of Key Stocks and identify priorities for regular consideration through SEDAR. Because there have never been adequate resources in the Southeast to assess all managed stocks, the Council has identified priority stocks for data collection and assessment repeatedly and in many ways over the years. The most basic prioritization is the ‘squeaky wheel’, where assessment effort is devoted to those stocks getting attention or creating controversy. For the first few years of SEDAR this is largely how things operated.

The MSA reauthorization in 2006 required that Councils submit Research and Monitoring plans to NOAA fisheries. In developing the initial plan submitted in 2008 the Council identified 18 “primary” stocks for which age-based assessments were desired and 11 “secondary” stocks for which non age-based assessments would be considered. These lists have been updated and modified over the years as priorities and managed stocks changed. In the most recent version (SAFMC 2023), 23 primary and 17 secondary stocks are listed.

In 2015 NOAA Fisheries produced a stock assessment prioritization document that proposed a national framework for prioritizing stocks. The framework consisted of a number of stock metrics that could be scored to provide an overall priority level. The approach was summarized for the SSC in October 2016 (*SSC October 2016 A3*). The SSC supported applying method to South Atlantic stocks and several iterations were developed during the ensuing years and reviewed by the SSC.

The prioritization framework was applied to 31 stocks and it was realized at the time that SEDAR could not complete that many assessments on a recurring basis. This led to the idea of “Key Stocks” that was presented to the SSC in October 2017 as a way to select a manageable number of stocks for regular assessments (*SSC October 2017 A11*). The goal was to identify 12 – 15 stocks that drive the management program, meaning that they are the ones that influence fishing trip decisions, and that collectively represent a large proportion of fishing landings. Efforts were also made, in collaboration with the Science Center, to develop a regular schedule for assessing the Key Stocks. The South Atlantic schedule was built around 4 analysts assessing 12 key stocks, addressing 7 stocks per year with a combination of update and interim analyses approaches. This provided 2 years between catch advice and 4 between assessment updates. It was recognized that adding ‘new’ stocks to the program or making major changes to existing assessment would require benchmark assessments that would reduce throughput. There was also considerable uncertainty as to whether the data enterprise could support this level of productivity. The SSC reviewed further progress on Key Stocks in May 2018 (*SSC May 2018 A22*). Additional information provided at this time included the % of each FMP’s landings attributed to the candidate Key Stocks.

The SEDAR Steering Committee discussed the key stocks and interim approaches described in the SSC documents during 2017 and 2018. The Research Track idea also entered into the discussions around this time, then fell by the wayside as the Steering Committee dealt with implementing the Research Track process and the rapidly increasing time demands it was placing on the system. Other challenges arose, such as addressing major recreational data revisions and the impact of COVID on all operations.

PROPOSED KEY STOCKS AND SEDAR SCHEDULING FOR THE SOUTH ATLANTIC

There are three aspects to SEDAR scheduling – the number of stocks, the frequency they are assessed, and the number of assessments that can be completed in any given year. Due to limited resources, attempting more stock assessments results in a longer time between assessments. The Council will need to balance the number of stocks with the acceptable time between assessments. Doing so effectively has been hindered by the lack of a clear indication of just how many stocks can be assessed. Since age data is a leading bottleneck, determining how many age based assessments can be done requires knowing how many age structures can be analyzed. The SEFSC provided feedback on species with accepted aging methods, species with validated methods, and species that could be aged every five years (see SEDAR Attachment 2b, Table 1). There were 16 species that could be updated on a five-year cycle. Most of the species that could be updated regularly were species that currently have aged based assessments. Two species with aged-based assessments but were unknown if they could be updated regularly were Snowy

Grouper and Tilefish. It is not clear if an increased number of age-based assessments could be supported by current funding for aging staff or if the number of may decrease due to budget issues.

The purpose of identifying Key Stocks is to reduce the overall workload demanded of SEDAR so that feasible stock assessment schedule can be developed to regularly assess the Key Stocks. Not all of the stocks currently assessed through SEDAR can be assessed in the future without the time between each assessment becoming excessive (>5 years, which is based on SAFMC SSC recommendation to limit projections to 5 years post terminal year of assessment). The initial schedule put forth by the SEFSC at the July Steering Committee meeting includes 14 stocks with an interval of 6 years between assessments (Atlantic Group Cobia are included in this), with some uncertainty noted.

Table 1 provides an overview of Key Stock candidates.

- Research Plan Level: the desired assessment level included in the Research and Monitoring Plan.
 - Levels are modified here to provide a single value for each stock, whereas the plan includes combination scores in some cases.
- Lead: the agency that conducts the assessment.
 - Both FWC and SEFSC conduct assessment through SEDAR, and each has a capacity to do some number of assessments.
 - Key Stocks is focused on species assessed by SESFC.
- Priority Score: Priority score from the NMFS assessment prioritization tool as presented to the SSC in 2017
 - Scores are based on the results that did not consider “assessment overdue” which measured the length of time past the desired assessment intervals.
 - Scores have not been updated and would differ today.
- Terminal Year Assessed: shows the year of data included in the model when the stock was last assessed.
- Next Assessment – Year when the next assessment for a stock is proposed to start.
- Key Candidate: Initial recommendation for key stocks.
 - Since the SEFSC proposal limits the Council to 14 key stocks assessed by the SEFSC, numbers are provided to keep track of the number of stocks.
 - Assessments by FWC are denoted with a Y.
- Bolded stocks: These stocks are under rebuilding plans and require assessment consideration to evaluate progress and determine when the stock is rebuilt.
 - National Standard 2 states updates should be provided every two years. Updates can range from tracking landings relative to ACL or a more in-depth analysis.

Many species identified as level 1 stocks by the Council have undergone SEDAR assessments (**Table 1**). Currently, Benchmark or Research Track assessments have been conducted for 14 Council managed stocks through SEDAR, with SEFSC staff leading the analysis. While the Council oversees many more stocks, only a few have sufficient data for age-based assessments and would likely require alternative evaluation methods (**Table 2**). For instance, only two additional species have validated aging methods: Yellowedge Grouper and Gray Triggerfish. Yellowedge Grouper is a non-assessed species with a validated aging method but lacks a potential index of abundance, with low landings averaging less than 100,000 pounds per year

from 2019 to 2023. On the other hand, Gray Triggerfish has an accepted aging method, an index of abundance, and high landings. An operational assessment has not been carried out for this stock due to workload limitations and the need to address other species with higher priority.

In addition, **Table 3** is a copy of the Fish Stock Sustainability Index (FSSI), which is used by NMFS to monitor the number of overfished, overfishing, and unknown stocks nationwide. The table includes the current stock status as reported to Congress, along with a timeline for a rebuilding plan if necessary and an estimate of biomass relative to biomass at Maximum Sustainable Yield (MSY). Similarly, **Table 4** presents information for non-FSSI species.

Considerations for Selecting Key Stocks

- Stock is a level 1 priority for the Council
 - Age-based assessment desired
- Stock is assessed successfully
 - Stocks selected for assessment in the past are clear priorities given there has never been a surplus of assessment capability.
 - Some assessments have been attempted but not passed peer review or have not been operationalized.
 - GA-NC Hogfish, Black Grouper, Goliath
 - Gray Triggerfish
- Stock is overfished
 - Rebuilding plans need regular evaluation

Notes on stocks that meet above criteria but are not suggested as Key Stocks

- Gray Triggerfish
 - Gray Triggerfish had 2 previous failed efforts before being considered for a Research Track completed in 2024.
 - Questions remain regarding the unit stock and ages for the fish included north of North Carolina.
 - An operational assessment based on the Research Track has not been completed. It was planned for 2024 but dropped to accommodate workload limitations and potential bias in recreational effort data.
 - Adding another stock to an overloaded system is counterproductive.
- Wreckfish
 - Wreckfish were assessed in 2014 by a contractor hired by fishery participants. The SSC reviewed the assessment and used it to recommend fishing levels.
 - The SEFSC will not update an outside assessment and has raised concerns about the validity of a US only assessment given the Atlantic-wide stock structure.
 - Wreckfish were included in SAFMC IRA projects as a potential species to address using a MSE style approach.

- Dolphin
 - Prioritized for an age based assessment but not scheduled due to SEFSC concerns with a US only assessment for an Atlantic-wide stock
 - An MSE is now underway and should be completed and evaluated before considering next steps for Dolphin.
- White Grunt
 - Assessments were planned over many years but the priority never rose high enough to be completed.
 - White Grunt likely have multiple stocks in the South Atlantic region and would pose additional difficulties in the assessment process.
 - The Council recommended dropping the stock from SEDAR priorities given workload limitations.
- Gray Snapper
 - Prioritized for an age based assessment but not reached SEDAR scheduling due to workload limitations.
- Spiny Lobster
 - Managed to optimize YPR because the stock is Caribbean-wide and the US does not contribute to spawning stock
- Black Grouper
 - During SEDAR 48, issues were raised about the identification issues between Black Grouper and Gag. The assessment was cancelled because the issues could not be resolved.
 - An MSE is underway and should be completed and evaluated before considering next steps for Black Grouper
- GA-NC Hogfish
 - Previous age-based assessment was not accepted.
 - Life history information has been gathered in recent years (since 2010).
 - Rare event in recreational datasets

Table 1. Level of requested stock assessment, lead agency for last stock assessment, terminal year of last completed stock assessment, proposed timing for next stock assessment, priority ranking score from 2017, and if a species is proposed as a key stock for South Atlantic managed species. Key stocks are either labeled with a y for yes or a number to keep track of the number of potential key stocks. Stocks in **bold** are under rebuilding plans. NOTE: not all Council managed species are included in the table.

Stock	Level	Lead	Terminal Year of Last Completed Assessment	Proposed Start of Next Assessment	2017 Priority score	Key Candidate (Numbers don't mean ranking)
Black Sea Bass	1	SEFSC	2020	2027	2.99	1
Blueline Tilefish	1	SEFSC	2015	On going	4.01	2
Gag	1	SEFSC	2019	2026	2.98	3
Golden Tilefish	1	SEFSC	2018	On going	2.94	4
Greater Amberjack	1	SEFSC	2016	2028	2.47	5
King Mackerel	1	SEFSC	2018	2027	3.44	6
Red Grouper	1	SEFSC	2015	2026	4.03	7
Red Porgy	1	SEFSC	2017	2028	5.49	8
Red Snapper	1	SEFSC	2019	2025	6.5	9
Scamp	1	SEFSC	2020		3.41	10
Snowy Grouper	1	SEFSC	2018	2027	4.89	11
Spanish Mackerel	1	SEFSC	2021	2028	3.42	12
Vermilion Snapper	1	SEFSC	2016	2027	2.86	13
Dolphin	1	SEFSC		MSE On going		Y
Black Grouper	1	FWC	2008	MSE On going	2.54	Y
FLK/EFL Hogfish	1	FWC	2012	2025	5.54	Y
Mutton Snapper	1	FWC	2011	On going	2.49	Y
Yellowtail Snapper	1	FWC	2010	On going	2.45	Y
GA-NC Hogfish*	1	SEFSC	2012		2.4	N
Gray Snapper	1	SEFSC				N
Gray Triggerfish	1	SEFSC	2020	Removed	3.42	N
White Grunt	1^	SEFSC			3.97	N
Almaco Jack	2	SEFSC			2.81	N
Atlantic Spadefish	2	SEFSC				N
Banded Rudderfish	2	SEFSC				N
Bar Jack	2	SEFSC				N
Knobbed Porgy	2	SEFSC			2.36	N
Lane Snapper	2	SEFSC			3.77	N
Penaeid Shrimp	2	SEFSC				N
Red Hind	2	SEFSC			2.17	N
Silk Snapper	2	SEFSC			2.29	N

Stock	Level	Lead	Terminal Year of Last Completed Assessment	Proposed Start of Next Assessment	2017 Priority score	Key Candidate (Numbers don't mean ranking)
Tomtate	2	SEFSC				N
Wahoo	2	SEFSC				N
Golden Crab	3	SEFSC				N
Nassau Grouper	3	SEFSC				N
Speckled Hind	3	SEFSC			2.4	N
Warsaw Grouper	3	SEFSC			2.05	N
Wreckfish	3	Consultant	2014		1.61	N
Goliath Grouper	3	FWC			2.31	N
Spiny Lobster	3	FWC	2010			N

* GA-NC Hogfish stock assessment was not recommended for use.

^ Council requested this species be removed from SEDAR Grid after the research plan was approved.

Table 2. Summary of Information Available by Stock and Average Landings. Stock status is based on the NMFS 2023 Stock Status Report of Congress (labeled with O is overfished, OO is overfished and experiencing overfishing, S is sustainable, and U is unknown). Number of length and otolith samples are based the Trip Information Program viewer provided to SAFMC staff from 2019 to 2023. Aging Structures are color coded based on an accepted aging structure as yellow, accepted aging structure and validated aging structure as green, and validated aging structure only as gray. Potential for an index of abundance is based on the SEFSC’s response letter (see Attachment 2b). Average landings are averaged FES weight plus commercial weight from 2019 to 2023 based on ACL tracking files. All landings are whole weight and annual values regardless of how a stock is tracked for ACLs. Bold indicates an assessment has been used in management.

Species	Stock Status (2023 Report to Congress)	Length Samples	Age Samples	Potential for an Index of Abundance	Average Landings in lbs (2019-2023)
Almaco jack	U	5,191	194		>500,000
Atlantic spadefish	U	60	0		>500,000
Banded rudderfish	U	488	45		<100,000
Bank sea bass	U	155	0		<100,000
Bar jack	U				<100,000
Black grouper	S	994	581	Yes	>100,000
Black sea bass**	S	3,830	1,517	Yes	>500,000
Blackfin snapper	U	1059	384		<100,000
Blueline tilefish	S	1,810	380	Soon	>100,000
Coney grouper	U				<100,000
Cottonwick	U	283	33		<100,000
Cubera snapper	U	112	81		<100,000
Dolphin	S	1,609			>2 million
Gag	OO	3,575	2,439	Yes	>100,000
Goliath grouper	U			Yes	<100,000
Gray snapper	U	2,471	1,976		>2 million
Gray triggerfish	S	8,844	532	Yes	>2 million
Graysby	U				<100,000
Greater amberjack	S	1,616	245	Yes	>1 million
Hogfish*	OO	619	158	Yes	<100,000
Jolthead porgy	U	246	8		>100,000
King mackerel	S	11,286	3,736	Yes	>2 million
Knobbed porgy	U	818	67		<100,000
Lane snapper	U	107	107		>100,000
Lesser amberjack	U	143	5		<100,000
Longspine porgy	U				<100,000
Margate	U	70	17		<100,000
Misty grouper	U	5	1		<100,000
Mutton snapper	S	2,647	2,304	Yes	>500,000

Species	Stock Status (2023 Report to Congress)	Length Samples	Age Samples	Potential for an Index of Abundance	Average Landings in lbs (2019-2023)
Nassau grouper	U				<100,000
Queen snapper	U	20	17		<100,000
Red grouper	O	498	317	Yes	>100,000
Red hind	U	86	58		<100,000
Red porgy	O	4,819	2,848	Yes	>100,000
Red snapper	OO	7,221	6,835	Yes	>2 million
Rock hind	U	238	158		<100,000
Rock sea bass	U	4	1		<100,000
Sailors choice	U	14	4		<100,000
Sand tilefish	U	747	3		<100,000
Scamp**	U	2,222	1,660	Yes	>100,000
Scup	U	103	0		<100,000
Silk snapper	U	3,554	949		<100,000
Snowy grouper	OO	4,089	2,398	Soon	>100,000
Spanish mackerel	S	13,961	2,158	Yes	>2 million
Speckled hind	U	3	3		<100,000
Tilefish	S	5,047	4,434	Soon	>500,000
Tomtate	U	802	100		>100,000
Vermilion snapper	S	27,044	20,755	Yes	>1 million
Wahoo	U	121	16		>1 million
Warsaw grouper	U	1	1		<100,000
White grunt	U				>100,000
Whitebone porgy	U	387	20		<100,000
Wreckfish	S	904	786	Yes	>100,000^
Yellowedge grouper	U	281	248		<100,000
Yellowfin grouper	U	32	19		<100,000
Yellowmouth grouper	U	68	43		<100,000
Yellowtail snapper	S	10,876	6,235	Yes	>1 million

* Includes both Florida East Coast/Florida Keys Stock and Georgia-North Carolina Stock

** New assessment has been completed but has not been adopted into management.

^ Indicates confidential landings. Value is based on ACL.

Table 3. Summary of Stock Status for FSSI Stocks. Reprinted from: NMFS – 2023 Status of US Fisheries. Table A. Summary of Stock Status for FSSI Stocks. Bolded indicates overfished species and yellow indicates species with change in stock status not included in the table.

Jurisdiction	Stock	Overfishing	Overfished	Approaching Overfished	Rebuilding Program Progress	B/Bmsy
SAFMC	Dolphinfish	No	No	No	NA	1.56
SAFMC	Brown rock shrimp	No	Unknown	Unknown	NA	not estimated
SAFMC	Brown shrimp	No	No	No	NA	6.65
SAFMC	Pink shrimp	No	No	No	NA	5.393
SAFMC	White shrimp	No	No	No	NA	8.333
SAFMC	Black sea bass	No	No	No	NA	0.713
SAFMC	Blueline tilefish	No	No	No	NA	1.056
SAFMC	Gag	Yes	Yes	No	Year 1 of 10	0.15
SAFMC	Gray triggerfish	No	Unknown	Unknown	NA	not estimated
SAFMC	Greater amberjack	No	No	No	NA	2.101
SAFMC	Red grouper	No	Yes	NA	Year 4 of 9	0.286
SAFMC	Red porgy	No	Yes	No	Year 2 of 26	0.27
SAFMC	Red snapper	Yes	Yes	NA	Year 13 of 35	0.44
SAFMC	Scamp	No	Unknown	Unknown	NA	not estimated
SAFMC	Snowy grouper	Yes	Yes	No	Year 18 of 34	0.362
SAFMC	Tilefish	No	No	No	NA	0.927
SAFMC	Vermilion snapper	No	No	No	NA	1.131
SAFMC / GMFMC	Cobia - Gulf	Yes	No	No	NA	0.689
SAFMC / GMFMC	King mackerel - Gulf	No	No	No	NA	0.922
SAFMC / GMFMC	King mackerel - Atlantic	No	No	No	NA	1.735
SAFMC / GMFMC	Spanish mackerel - Gulf	No	No	No	NA	0.828
SAFMC / GMFMC	Spanish mackerel - Atlantic	No	No	No	NA	1.05
SAFMC / GMFMC	Black grouper*	No	No	No	NA	1.4
SAFMC / GMFMC	Mutton snapper*	No	No	No	NA	1.132
SAFMC / GMFMC	Yellowtail snapper*	No	No	No	NA	1.467

Table 4. Summary of Stock Status for non-FSSI Stocks. Reprinted from: NMFS – 2023 Status of US Fisheries. Table C. Summary of Stock Status for FSSI Stocks. Bolded indicates overfished species and * indicates stock unit includes Gulf of Mexico stock.

Jurisdiction	Stock	Overfishing	Overfished	Approaching Overfished	Rebuilding Program Progress
SAFMC	Black corals (Antipatharia)	No	Unknown	Unknown	NA
SAFMC	Fire corals (Milleporidae)	No	Unknown	Unknown	NA
SAFMC	Hydrocorals (Stylasteridae)	No	Unknown	Unknown	NA
SAFMC	Soft corals (Octocorallia)	No	Unknown	Unknown	NA
SAFMC	Stony corals (Scleractinia)	No	Unknown	Unknown	NA
SAFMC	Wahoo	Unknown	Unknown	Unknown	NA
SAFMC	Golden deepsea crab	Unknown	Unknown	Unknown	NA
SAFMC	Sargassum	No	No	Unknown	NA
SAFMC	Atlantic spadefish	Unknown	Unknown	Unknown	NA
SAFMC	Bar jack	Unknown	Unknown	Unknown	NA
SAFMC	Hogfish - Carolinas	Unknown	Unknown	Unknown	NA
SAFMC	Hogfish - Florida Keys / East Florida	No	Yes	NA	Year 7 of 10-year plan
SAFMC	Nassau grouper *	No	Unknown	Unknown	NA
SAFMC	South Atlantic Deepwater Snapper	Unknown	Unknown	Unknown	NA
SAFMC	South Atlantic Grunts Complex	Unknown	Unknown	Unknown	NA
SAFMC	South Atlantic Jacks Complex	Unknown	Unknown	Unknown	NA
SAFMC	South Atlantic Porgy Complex	Unknown	Unknown	Unknown	NA
SAFMC	South Atlantic Shallow Water Snapper-Grouper Complex	Unknown	Unknown	Unknown	NA
SAFMC	South Atlantic Snappers Complex	Unknown	Unknown	Unknown	NA
SAFMC	Speckled hind	Unknown	Unknown	Unknown	NA
SAFMC	Warsaw grouper	Unknown	Unknown	Unknown	NA
SAFMC	Wreckfish	No	No	No	NA
SAFMC / GMFMC	Goliath grouper *	No	Unknown	Unknown	NA
SAFMC / GMFMC	Caribbean spiny lobster *	No	Unknown	Unknown	NA

Supporting Documents

SEDAR March 2024 A03: Attach3_SEFSC_Stock Assessment Process Improvements.pdf;
SEDAR Steering Committee Meeting March 2024.

SEDAR July 2024 A3: Attach3_SEFSC_SEDAR Calendar Proposal_ver2.pdf; SEDAR Steering
Committee Meeting July 2024

SSC May 2018 A22: A22_safmckeystockcandidates-sscmarch2018-pdf; SAFMC SSC Meeting
May 2018

SSC October 2016 A3: A03_stock_assessment_prioritization_safmc-pdf; SAFMC SSC Meeting
October 2016

SSC October 17 A11: A11-altassessscheduling-sscoct17-pdf.; SAFMC SSC Meeting October
2017.

SAFMC 2023: SAFMC Research and Monitoring Plan for 2023 – 2027.