

SCIENCE

GOAL: Management decisions for the snapper grouper fishery are based upon robust, defensible science that considers qualitative and quantitative data analyzed in a timely, clear, and transparent manner that builds stakeholder confidence.

Objective 1.	Strategy 1.1	Evaluate existing data collection, monitoring, and reporting programs affecting fisheries managed by the Council.	FL			GA			SC			NC			TOTAL		
			X	v	Ø	X	v	Ø	X	v	Ø	X	v	Ø	X	v	Ø
Promote collection of quality data to support management plans and programs considered by the Council.	Actions:	A. Evaluate fishery dependent and independent data programs.			0			0		1			0	0	1	0	
		B. Evaluate SEDAR.		3				0		2		1		0	6	0	
		C. Validate data collection programs.			0		1			2			0	0	3	0	
		D. Identify sampling resources needed to support data programs.		1				0		2			0	0	3	0	
		E. Improve the timeliness of SAFE reports.			0			0		2			0	0	2	0	
		F. Consider utilizing third party analysis and assessments using a standard stock assessment process.	1	2				0		2			0	1	4	0	
	Strategy 1.2	Encourage consistency in data collection programs that incorporates standardized methods, reporting requirements and formats across the South Atlantic region.															
	Actions:	A. Utilize ACCSP standards for data collection.			0		2			1			0	0	3	0	
		B. Support efforts to create a uniform, efficient reporting mechanism for trip tickets and logbooks (C,FH).			0		2	0		2			0	0	4	0	
	Strategy 1.3	Support improvement and expansion of fishery independent programs.															
	Actions:	A. Identify alternative sources of funding to support expansion of fishery independent surveys.			0		1			2			2		5	0	
		B. Work with management partners to secure long-term funding for the MARMAP survey.			0		1			2			0	0	3	0	
		C. Support creation of a comprehensive data portal that provides access to all fishery independent data.			0		1			2			0	0	3	0	

Objective 2.	Strategy 2.1	Promote and expand opportunities for cooperative research and surveys in the South Atlantic region.	FL-X	v	Ø	GA-X	v	Ø	SC-X	v	Ø	NC-X	v	Ø	T-X	v	Ø
Encourage development of mechanisms to effectively engage and collaborate with stakeholders on cooperative research, data collection and analysis.	Actions:	A. Identify sources of funding (both traditional and non-traditional) for cooperative research and surveys.		1				0		2			2		0	5	0
		B. Improve partnerships between potential researchers and fishermen. (ALL)		1				0		3			2		0	6	0
		C. Support partnerships to enhance habitat and ecosystem mapping in the region.			0		1	0		1				0	0	2	0
		D. Support a multi-disciplinary body to oversee and guide cooperative fishery independent surveys, monitoring, and research.			0			0		2				0	0	2	0
		E. Consider use of an industry research set-aside funding program to support fishery research and monitoring needs. (C)			0			0		1			3		0	4	0
		F. Utilize fishing vessels and captains as alternative observer platforms. (ALL)			0			0		2				0	0	2	0
	Strategy 2.2	Support development of citizen science programs for data collection needs in the snapper grouper fishery.															
	Actions:	A. Support a volunteer angler training program to collect specific data to address a science or management need. (ALL)			0		2			2			5		0	9	0
		B. Develop methods to incorporate volunteer data for use in stock assessments, and other management measures. (ALL)			0		1			3				0	0	4	0
		C. Consider the use of volunteer angler tagging programs and partnerships with fishing clubs and others to train and promote programs (traditional catch and release, etc.).			0		2			2			5		0	9	0
D. Utilize fishing vessels and captains as alternative data collection platforms.				0		2			2			1		0	5	0	
Objective 3.	Strategy 3.1	Support collection of relevant economic and social data to produce analyses that allows Council to consider effects of management on fishing communities.															
Improve knowledge about the social and economic elements of the snapper grouper fishery in the South Atlantic.	Actions:	A. Support data collection that considers economics when determining allocation strategies.			0		1			1				0	0	2	0
		B. Evaluate broad cumulative social and economic impacts of proposed and existing management measures and alternatives to assess how management actions affect other fisheries.		4			1			1		1	2		1	8	0
		C. Develop partnerships with research institutions, agencies and other organizations with appropriate expertise to collect relevant and timely social and economic data to support the data needs of the Council.				0		1			1		2		0	4	0

Objective 4.	Strategy 4.1	Consider a wide range of monitoring options for the snapper grouper fishery that will meet a specific management objective.	FL-X	v	∅	GA-X	v	∅	SC-X	v	∅	NC-X	v	∅	T-X	v	∅	
Support improved and expanded monitoring and reporting programs for the snapper grouper fishery.	Actions:	A. Consider the use of observers in the fishery to monitor for a specific management issue.	1	1			1		1				1		2	3	0	
		B. Support the use of observer data to improve discard rate estimates.		1	0		0		2				1		0	4	0	
		C. Consider development and use of appropriate electronic monitoring methods (scale, cost, approach, etc.)	95				1		7	0			9	1	0	111	2	0
		D. Support for law enforcement to enforce monitoring requirements.			0		1		2						0	0	3	0
	Strategy 4.2	Support further development of reporting mechanisms for all sectors in the snapper grouper fishery.																
	Actions:	Reporting mechanisms that could be improved and considered include:																
		A. Development of a reporting program for the recreational sector.		2			0		3				3		0	8	0	
		B. Use of electronic reporting mechanisms for all sectors of the fishery (mobile apps, cellphones, web-based, etc.)	2	2			2		2				2		2	8	0	
		C. Consider the use of swipecards for the recreational sector.		2			2		1						0	0	5	0
		D. A recreational fishing stamp/permit/license for the snapper grouper fishery.		8			0		2						0	0	10	0
		E. Increase dockside biological sampling for the recreational sector.		1			0		2						0	0	3	0
		F. Catch card reporting program for specific species.		1		1	1		1						0	1	3	0
		G. Improvements to existing logbook programs (Better resolution on logbook grids, Vessel Trip Report in discard logbook, etc.)		1			0		2						0	0	3	0
		H. Incentives for reporting in all sectors.			0		0		2						0	0	2	0
		I. Consequences for lack of reporting.		1			1		2						0	0	4	0
		J. Support for law enforcement to enforce reporting requirements.			0	1	1		2						0	1	3	0
		K. Increase bycatch/discard reporting.		2			1	0	2						0	0	5	0
L. Implement Standard Bycatch Reporting Methodology			2			0		2						0	0	4	0	
M. Develop a model to improve discard rate estimates for all sectors.		2			1		2				1			1	5	0		

Objective 5. Promote data collection and analysis to support ecosystem and habitat considerations for the snapper grouper fishery.	Strategy 5.1 Consider assessment of ecosystem and habitat data needs for the snapper grouper fishery.		FL-X	v	Ø	GA-X	v	Ø	SC-X	v	Ø	NC-X	v	Ø	T-X	v	Ø
	Actions:	A. Improve understanding and consider species interaction with habitats and ecosystems.		1				0		2				0	0	3	0
		B. Study the non-fishing ecosystem drivers.		1			1			2				0	0	4	0
		C. Consider how to utilize ocean monitoring to support management decisions.		1				0		2				0	0	3	0
		D. Improve understanding of the effects of contaminants on habitats/ecosystems.		1				0		2				0	0	3	0
		E. Evaluate ocean dumping and impacts to habitat/ ecosystems.		1				0		1				0	0	2	0
		F. Improve timeliness, accuracy, and coverage of bottom mapping.		1			1			2				0	0	4	0
		G. Determine how habitats (naturally occurring and man-made) contribute to production of managed species and the distribution of different life stages.		1				0		2				0	0	3	0
		H. Evaluate the effectiveness of artificial reefs (both shallow water and deep water) as a management tool.		1				0		2			1		0	4	0
		I. Evaluate habitat/ecosystem damage from disturbance (anchors, gear, fishing activities, etc.)		1				0		2			1		0	4	0
J. Improve understanding of the impacts of offshore energy development on habitats and ecosystems that support the snapper grouper fishery.			1				0		1				0	0	2	0	
Strategy 5.2 Consider climate change impacts when developing management decisions for the snapper grouper fishery.																	
Actions:	A. Support development of metrics to evaluate climate change.			0			0		2				0	0	2	0	
	B. Evaluate the impact of sea level rise on the fishery.			0			0		2				0	0	2	0	
	C. Evaluate impacts of cold water intrusion on the fishery.			0			0		2				0	0	2	0	
	D. Evaluate impacts of ocean acidification on the fishery.			0			0		2				0	0	2	0	
Strategy 5.3 Support modeling efforts that incorporate habitat and ecosystem considerations for management of the snapper grouper fishery.																	
Actions:	A. Use climate change impacts on species in assessments.			0			0		2				0	0	2	0	
	B. Support a simulation model showing ecosystem impacts between fisheries.			0			0		2				0	0	2	0	
	C. Consider expanding the geographical boundary of the Snapper Grouper Fishery Management Unit as species spread.			0			0		2				0	0	2	0	
	D. Monitor changes in species distribution and abundance (in conjunction with management partners).			0			0		2				0	0	2	0	
	E. Address impacts of non-indigenous species on the fishery and habitats that support the fishery (in conjunction with management partners).			0		2			2			1		0	5	0	
	F. Analyze the impacts of management on non-targeted species.			0			0		2				0	0	2	0	
	G. Improve understanding of predator-prey interactions on snapper grouper species (in conjunction with management partners).			0			0		2				0	0	2	0	
	H. Consider species habitat models.			0		1			2				0	0	3	0	
	I. Consider external sources of recruitment.			0			0		2			1		0	3	0	

NEW IDEAS - SCIENCE (All states combined)

Comment Type	NEW Idea- Strategy/Action	Goal Addressed	Possible Objective/ Strategy Addressed	Sector (if available)	Total # of comments
Written Comments	Study on the effects of power chumming on species/ecosystems	Science	NEW	Commercial	1
Written Comments	Research on more efficient and eco-friendly harvesting methods	Science	NEW	Commercial	1
Written Comments	Include a specific strategy dealing with collection of recreational data	Science	NEW-Obj 1; Strat 1.2	Commercial	1
Written Comment	Distinguish the actions in the Science Goal that will be accomplished by the Council vs. the SE Fisheries Science Center	Science	NEW	Other	1
Written Comment	Consistency in data collection with the Mid-Atlantic Council due to overlapping species management	Science	NEW - Strat 1.2	Other	1
CS-Wilmington	Develop a recreational fishing team for the region that could provide feedback to the Council on what they are seeing on the water.	Science	NEW - Strat 2.1/2.2	Recreational	1
CS-Wanchese	Need better data collection from the dive boat operator sector	Science	NEW-Obj 4; Strat 4.2	Recreational	2
CS-Morehead City	Prioritize stock assessments based on economics.	Science	NEW - Obj 1; Strat 1.1	Commercial	1
Written Comment	Conduct a survey of commercial fishermen to determine demographic (full-time; part-time; participate in multiple fisheries, etc.)	Science	NEW-Obj 3; Strat 3.1A		1