



South Atlantic Fishery Management Council **Citizen Science Research Priorities**

SAFMC

December 2021



Citizen Science Research Priorities

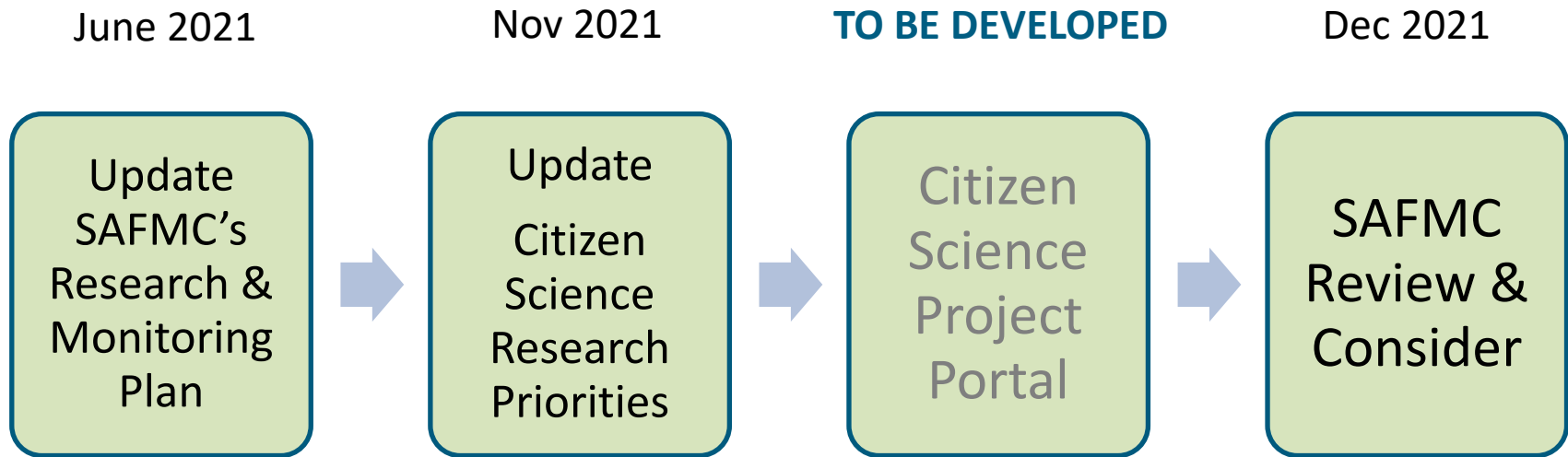
Updated every
two years

Guides projects
the Program
pursues and
supports

SAFMC Citizen Science Research Needs		
TOPIC	DATA NEEDED:	POTENTIAL OUTCOME:
Age Sampling	Otolith collection	Age of catches
Maturity Data	Gonad collection	Improved reproductive information
Discard information	Length, depth, # of fish, reason, devices used	Improved discard removal estimates, size comps of discards
Genetic Sampling	Fin clips	Stock I.D.
Fishing Infrastructure	Location and type of infrastructure	Document social/economic impacts of regulations over time
Historical Fishing Photos	Images (electronic)	Length comps; improved historical information
Fishing Oral Histories	Fishermen Interview	Improved understanding of the changes in the fishery over time
Oceanographic/ Environmental Conditions	Bottom temperature; weather	Build database on climate and changing conditions
Rare or data limited species observations	Point observations	Baseline for species shift; increased information on data limited species
Diet Samples	Stomach collection	Improved diet information
Personal Fishing Logbooks/Diaries	Logbook data (electronic)	Develop relative indices of abundance



Citizen Science Research Prioritization Process



Informed by SSC,
APs, SEDARs, SAFMC

Cit Sci Projects
Advisory &
Operations
Committees



CitSci Research Priorities: Feedback

- Are there any priorities that should be removed or added to this list?
- Are there any additions or deletions to the target species listed under the applicable priorities?
- Are there any additional Council Research and Monitoring needs where a citizen science approach may work that aren't included on this list?
- Which of the priorities may help address the most immediate needs for science and management?



CitSci Research Priority: *Age Sampling*

- **Target volunteers:** Recreational
- **Data needed:** otolith collection
- **Target species:** Cobia, Greater AJ, Scamp, Snowy grouper, Gag, Knobbed Porgy, Porgy Complex, Almaco Jack, Dolphin, Wahoo, Hogfish (GA-NC Stock), Lane Snapper, Red Grouper, Vermilion Snapper, Blueline Tilefish
- **Anticipated outcome:** characterize the age of catches
- **Potential cost:** \$\$

Recommendation: Support keeping as a research priority with additional species suggested



CitSci Research Priority: *Maturity Data*

- **Target volunteers:** Recreational & commercial, tournaments
- **Data needed:** gonad collection (actual biological sample or pictures)
- **Target species:** Cobia, Red Porgy, Snowy Grouper, Spiny Lobster, Gag, Red Grouper, Black Grouper, Scamp, Black Seabass, Greater AJ, Wahoo, Mutton Snapper
- **Anticipated outcome:** improved reproductive information
- **Potential cost:** \$\$

Recommendation: Support keeping as a research priority with additional species suggested



CitSci Research Priority: *Discard Info*

- **Target volunteers:** Recreational & commercial
- **Data needed:** length of fish, depth caught/released, number of fish, reason for discard, use of barotrauma reduction devices
- **Target species:** All SAFMC managed species in particular - Scamp, Red Snapper, Deepwater Groupers, Red Porgy, Greater AJ, Cobia, King Mackerel (sub-legal releases), Gray Triggerfish
- **Anticipated outcome:** improved discard removal estimates, ability to characterize size composition of discards
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Genetic Sampling*

- **Target volunteers:** Recreational & commercial; bait & tackle; tournaments
- **Data needed:** fin clips
- **Target species:** Cobia, Hogfish (both stocks), Red Grouper, White Grunt, Spanish Mackerel, Dolphin
- **Anticipated outcome:** stock ID
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority with additional species suggested



CitSci Research Priority: *Fishing Infrastructure*

- **Target volunteers:** Recreational, commercial community members/citizens
- **Data needed:** GPS location of existing and previously active fishing infrastructure
- **Anticipated outcome:** Baseline fishing-related infrastructure to help document potential impacts from regs
- **Potential cost:** \$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Historic Fishing Photos*

- **Target volunteers:** Recreational & for-hire
- **Data needed:** digitized images/photos
- **Target Species:** commonly caught charter & headboat species
- **Anticipated outcome:** estimated length comps for some species, improved historical info
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Fishery Oral Histories*

- **Target volunteers:** For-hire and commercial captains
- **Data needed:** interviews with fishermen to learn about the history and current state of fishery; possibly pair with photos
- **Anticipated outcome:** documentation of how fisheries operated over time & other observational data
- **Potential cost:** \$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Oceanographic/Environmental/Weather Conditions*

- **Target volunteers:** recreational & commercial
- **Data needed:** bottom temperature, weather impacts to fishing; presence/absence of *Sargassum* and size of area; movement of forage fish and shifts in patterns of a fishery
- **Anticipated outcome:** building database on climate and conditions; distribution of *Sargassum*; how forage fish impacts patterns in a fishery
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Rare or Data Limited Species Observations*

- **Target volunteers:** recreational & commercial
- **Data needed:** point observations of unusual or rarely encountered species
- **Anticipated outcome:** baseline for species shift; increase info for data limited species
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority



CitSci Research Priority: *Diet Samples*

- **Target volunteers:** recreational, for-hire & commercial
- **Data needed:** stomach collection
- **Target species:** all groupers (especially Black, Scamp, Yellowmouth, Snowy, and Warsaw), Tilefish, Blueline Tilefish, Greater Amberjack, Lesser Amberjack, Almaco Jack, Wahoo and Dolphin (FL/GA), Red Snapper, Black Seabass, Bullet Mackerel, Frigate Mackerel
- **Anticipated outcome:** improved diet information
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority with suggested target species



CitSci Research Priority: *Personal Fishing Logbooks*

- **Target volunteers:** for-hire & commercial
- **Data needed:** translate fishermen logbooks into electronic data/database
- **Anticipated outcome:** develop relative indices of abundance?
- **Potential cost:** \$-\$\$

Recommendation: Support keeping as a research priority



CitSci Research Priority: ***Monitoring in Managed Areas***

- **Target volunteers:** recreational & commercial
- **Data needed:** species, length, depth
- **Target species:** deepwater snapper & grouper
- **Anticipated outcome:** changes in fish abundance over time
- **Potential cost:** \$\$

Recommendation: Support adding as a research priority



CitSci Research Priority: ***Movement & Migration***

- **Target volunteers:** recreational & commercial
- **Data needed:** species, location, length, tag details
- **Target species:** Dolphin & Wahoo
- **Anticipated outcome:** movement & migratory patterns
- **Potential cost:** \$-\$\$

Recommendation: Support adding as a research priority



CitSci Research Priority: ***Shark Predation***

- **Target volunteers:** recreational & commercial
- **Data needed:** observations of shark depredation, location, species
- **Anticipated outcome:** documentation of shark depredation observations
- **Potential cost:** \$-\$\$

Recommendation: Support adding as a research priority



CitSci Research Priorities

Other suggestions discussed but not recommended for inclusion

- Bottom habitat mapping
- Fishing effort
- Gear modification to reduce discards

Other feedback provided through discussions that could be applied more broadly to Citizen Science program

- Explore idea of 'Research Fleet'
- Dive community good potential group to partner with

