



SAFMC Citizen Science Program

Citizen Science Research Needs

1. Age Sampling:

- a. Target volunteers: Recreational
- b. Data needed: otolith collection
- c. Target species: cobia, greater amberjack, scamp, snowy grouper, gag
- d. Anticipated outcome: characterize the age of catches
- e. Potential cost: \$\$

2. Maturity Data:

- a. Target volunteers: Recreational and commercial
- b. Data needed: gonad collection (either actual biological samples or pictures)
- c. Target species: cobia, red porgy, snowy grouper
- d. Anticipated outcome: improved reproductive information
- e. Potential cost: \$\$

3. Discard information:

- a. Target volunteers: Recreational and commercial
- b. Data needed: length of fish; depth caught/released; number of fish; reason for discard; devices used
- c. Target species: scamp grouper, red snapper, deepwater groupers, red porgy, greater amberjack, cobia
- d. Anticipated outcome: improved discard removals estimates, ability to characterize size composition of discards
- e. Potential cost: \$-\$\$

4. Genetic Sampling:

- a. Target volunteers: Recreational and commercial
- b. Data needed: fin clips
- c. Target species: cobia
- d. Anticipated outcome: stock identification
- e. Potential cost: \$-\$\$

5. Bottom Habitat Mapping:

- a. Target volunteers: Recreational and for-hire captains
- b. Data needed: mapping data using multi-beam or side scan sonar equipped on fishing vessels
- c. Anticipated outcome: improved habitat maps, improved resolution
- d. Potential cost: \$\$-\$\$\$

6. Monitoring in Managed Areas (MPAs, Spawning Special Management Zones):

- a. Target volunteers: Recreational
- b. Data needed: species, length, depth
- c. Target species: deepwater snapper and grouper
- d. Anticipated outcome: changes in fish abundance over time
- e. Potential cost: \$\$

7. Fishing Infrastructure:

- a. Target volunteers: Recreational; commercial; community members/citizens
- b. Data needed: GPS location of fishing-related infrastructure (commercial fishing facilities, marinas, bait/tackle shops, ice house, fuel docks, boat ramps, piers, roadside seafood stands, retail markets, etc.)
- c. Anticipated outcome: Baseline for fishing-related infrastructure to help document potential impacts from regulations
- d. Potential cost: \$

8. Historical Fishing Photos:

- a. Target volunteers: Recreational and for-hire
- b. Data needed: digitized images (will need to scan print photos into digital format)
- c. Target species: commonly caught charter/headboat species
- d. Anticipated outcome: length comps for certain species; improved historical information
- e. Potential cost: \$-\$\$

9. Fishery Oral Histories:

- a. Target volunteers: For-hire and commercial captains
- b. Data needed: interviews with fishermen to learn about the history of a fishery; possibly pair interviews with topic #8 (Historical Fishing Photos)
- c. Anticipated outcome: documentation of how fisheries operated over time (catchability changes over time with improvements in technology; markets; clients; species distribution; size of fish; weather; etc.) and other observational data
- d. Potential cost: \$

10. Oceanographic/Environmental/Weather Conditions:

- a. Target volunteers: Recreational and commercial
- b. Data needed: Bottom temperature; weather impacts to fishing
- c. Anticipated outcome: building database on climate and conditions
- d. Potential cost: \$-\$\$

11. Rare Species Observations:

- a. Target volunteers: Recreational and commercial
- b. Data needed: point observations of unusual or rarely encountered species
- c. Anticipated outcome: baseline for species shift
- d. Potential cost: \$-\$\$