SAFMC Citizen Science Program
Citizen Science Research Priorities

Age Sampling^:
 a. Target volunteers: Recreational
 b. Data needed: otolith collection, fin clips (still developing)
 c. Target species: Cobia, Greater Amberjack (fin clips), Scamp, Snowy Grouper, Gag, Knobbed Porgy, Porgy complex, Wahoo, Lane Snapper, Hogfish (both stocks), Red Grouper, Black Grouper, Vermilion Snapper, Blueline tilefish, Black Seabass (private recreational), Gray Triggerfish (spines), Red Snapper, Spiny Lobster (ossicles)
 d. Anticipated outcome: characterize the age of catches
 e. Potential cost: $$

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; when and where fish are released; terminal gear use;, disposition of fish (e.g., released alive/dead)
 c. Target species: all SAFMC managed species in particular, Scamp, Red Snapper, deepwater groupers, Red Porgy, Greater Amberjack, Cobia, King Mackerel (sub-legal releases), and Gray Triggerfish
 d. Anticipated outcome: improved discard removals estimates; ability to characterize size composition of discards; could help monitor recruitment for some species (e.g., Gag)
 e. Potential cost: $-$$

Genetic Sampling^:
 a. Target volunteers: Recreational and commercial; bait and tackle shops; tournaments
 b. Data needed: fin clips
 c. Target species: Cobia, Hogfish (both stocks), Red Grouper, White Grunt, Spanish Mackerel, Dolphin, Wahoo, Black Grouper/Gag, Scamp/Yellowmouth, Red Snapper, Greater Amberjack
 d. Anticipated outcome: stock identification; species identification; ageing (still developing)
 e. Potential cost: $-$$

Fishing Infrastructure:
 a. Target volunteers: Recreational, commercial, community members/citizens, county/state government and municipalities
 b. Data needed: GPS location of existing and previously existing/closed 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; could help define communities and better understand key fishing hubs for social analysis for FMP amendments; track behavior changes in a fishery
 d. Potential cost: $

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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; potential for index development
e. Potential cost: $-$$

Fishery Oral Histories^ and Historic Personal Fishing Logbooks/Diaries:
a. Target volunteers: For-hire and commercial captains
b. Data needed: interviews with fishermen to learn about the history and current state of a fishery; translate fishermen's historic logbooks into electronic data; possibly pair interviews or logbooks with topic #6 (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: $-$$

Oceanographic/Environmental/Weather Conditions:
a. Target volunteers: Recreational and commercial
b. Data needed: Bottom temperature; weather impacts to fishing; movement of forage fish (bait) and shifts in patterns of a fishery (i.e., mackerel)
c. Anticipated outcome: building database on climate and conditions; how forage fish impacts patterns in a fishery
d. Potential cost: $-$$

Shifting Species and Rare Event or Data Limited Species Observations:
a) Target volunteers: Recreational and commercial, divers
b) Data needed: Point observations of data limited and/or unusual or rarely encountered species for areas along the Atlantic coast; length information for data limited species
c) Target species:
   - Shifting and rare event: all managed species, but especially – Dolphin, King Mackerel, Spanish Mackerel, shrimp, Wahoo, Black Seabass, Tilefish
   - Data limited: Hogfish (both stocks), snapper and grouper species, spiny lobster
d) Anticipated outcome: baseline and/or early warning for species shift; increasing information available for data limited species, in particular length compositions
e) Potential cost: $-$$

Observations in Managed Areas^:
a. Target volunteers: Recreational and commercial, divers
b. Data needed: species, length, depth, videos/photos; effort in closed areas; observations on edge effects
c. Target species: snapper and grouper

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    d. Anticipated outcome: species composition; changes in fish abundance over time; occurrence of spawning, information on compliance

    e. Potential cost: $$

Movement and Migration:
    a. Target volunteers: Recreational and commercial, focus on supporting and working with existing tagging programs
    b. Data needed: species, location, length, tag details
    c. Target species: Dolphin, Wahoo, Spanish Mackerel
    d. Anticipated outcome: movement and migratory patterns
    e. Potential cost: $-$$

Shark & Marine Mammal Depredation:
    a. Target volunteers: Recreational and commercial
    b. Data needed: observations of shark depredation, location, species, photo, DNA swabs
    c. Anticipated outcome: document shark and mammal depredation observations
    d. Potential cost: $-$$

Habitat Characterization:
    a. Target volunteers: Recreational and commercial, divers
    b. Data needed: photo/videos, location (concentrate on South Atlantic Essential Fish Habitat)
    c. Anticipated outcome: ground truth bathymetry data
    d. Potential cost: $-$$

Spiny Lobster Data
    a. Target volunteers: Recreational and commercial, divers
    b. Data needed: catch, effort, carapace length, sex, presence of eggs, presence/absence
    c. Anticipated outcome: characterize fishery in FL and GA north (data more limited for this portion of the fishery so this higher priority)
    d. Potential cost: $

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