

**SAFMC Citizen Science Operations Advisory Panel**  
**Webinar Meeting Summary**  
**10/16/2025**

### Welcome and Meeting Overview

- Staff gave a short welcome and introduced the SAFMC CitSci Committee chair (Amy Dukes) and vice-chair (Kerry Marhefka); AP members introduced themselves
- Staff reviewed the webinar goals:
  - *Discuss Citizen Science Program indicators and recommend key indicators to monitor under each Program goal*
  - *Review and recommend updates to citizen science research priorities*
  - *Update on Citizen Science Program activities.*
  - *Discuss Citizen Science Program growth and ways to increase capacity*

### Citizen Science Program Indicators

- Staff gave a brief presentation on efforts to develop key indicators to track the progress and impact of the CitSci Program over time; Program would like to select a few key indicators to regularly monitor for each Program goal; staff walked through their suggestions for key indicators with example graphics
- AP provided feedback on the key indicators and graphics as well as provided suggestions on how best to present this information to the Council; key discussion points are summarized below
- General Feedback
  - Indicators should help provide a clear picture of the program's progress; should be clear, relevant and feasible for staff to monitor with current capacity
  - AP agreed that some indicators are more appropriate for internal program management while others are helpful for external reporting; would be helpful to tag each indicator as internal, external, or both to guide how and where the indicators are used
  - Visual clarity is critical in sharing this information with Council and more broadly
  - Once indicators developed – explore ways to share external indicators (e.g., via webpage, presentation to Council (see Gulf Council Outreach and Communication Metrics presentation by Emily M), annual report)
  - When sharing indicators with Council at December meeting – needs to be graphically focused and concise presentation; more detailed documentation could be provided in background materials
- **Goal 1 (Program) Indicators (indicators in italics)**
  - ***Number of people and organizations that have served on CitSci advisory groups - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in Dec***; liked the example graphic but noted it would be helpful to add years to the title and tweak the color palette so the organization categories are easier to

differentiate; in the future it may be helpful to summarize by time block or limit the graphic to show a more recent timeframe

- **Number of external programs that have used CitSci Program policies and procedures – recommend not regularly monitoring this metric;** AP noted this would be challenging to track; many people could use Program policies without staffs' knowledge – so measure could be an underestimate
- **Number of invitations to present on CitSci Program and/or serve on CitSci focused work groups – AP noted this could be a key indicator regularly monitored but was a lower priority;** could help demonstrate that the Program is supporting citsci efforts more broadly and it is looked to as an example; this measure could also potentially be incorporated into the 'outreach activities' indicator
- **Goal 2 (Project) Indicators:**
  - **Proposals submitted by year and research priority – AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December;** preferred the graphic showing proposals by research priority (opposed to proposals by role - e.g., PI/co-PI vs collaborator); noted that research priorities will likely evolve over time – so may be helpful to use shading/grouping to show 'active vs retired priorities' or consider showing data in multi-year time blocks in the future; could be helpful to incorporate staffing numbers to provide context for productivity; tweak the color palette so the research priority categories are easier to differentiate and potentially explore summarizing in pie chart
  - **Number and diversity of projects developed - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December;** members like visual graphic – summarized a lot of info in a simple way; suggested improving alignment of elements and tweaking layout so it doesn't imply the information is presented in columns
  - **Number of external funding sources received - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December;** AP noted it may be helpful to track the dollar amount in this indicator internally; need to find a better way to highlight the importance of the ASMFC MOU
  - **Grant success rate (new idea) –** may be helpful to develop an indicator to track grant success rate (proposals submitted vs. funded) internally
  - **Staffing (new idea) -** may be helpful to develop an indicator to measure staffing levels over time; could be helpful to incorporate into graphics showing proposal and/or project indicators; this type of indicator could help demonstrate what Program was able to accomplish with limited capacity to help promote what the Program could accomplish with more resources
  - **Stakeholder Impact (new idea) –** explore ways to potentially measure who will benefit from data collected via projects; collectively likely impacting a large group so would be impactful to measure – but challenging to figure out how best to do this

- **Goal 3 (Data) Indicators:**
  - ***Projects that have been considered and/or recommended for use in assessment of management*** – AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December; AP members noted graphic is limited in scope currently but critical to monitor over time as a measure of projects being used to inform decision making
  - ***Accessibility (new idea)*** – consider developing an indicator to monitor data accessibility; could include availability in public data warehouses, data summary reports, etc.
  
- **Goal 4 (Engagement & Collaboration):**
  - ***Number of volunteers by project and activity*** - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December; suggested measuring volunteer growth over time and incorporating that into a graphic – noted may need to monitor or display differently for each project; consider monitoring volunteer hours (if feasible) as an additional metric to measure volunteer impact as it can be more easily translated into economic value
  - ***Number of partners contributing to CitSci Program*** - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December; thought this indicator was simple, effective, and meaningful to external audiences; would be helpful to emphasize growth and retention over time; aligns with how other programs (e.g., Sea Grant) communicate their impact
  - ***Number of outreach activities CitSci Program has conducted or collaborated on*** - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December; provides good representation of in-person engagement; would be helpful to track growth over time and possibly attendance at events (as feasible); may be helpful to clarify what activities are included in ‘other’
  - ***Online program reach (e.g., webpage views, QR code scans, social media analytics)*** - AP supported this metric as a key indicator to regularly monitor and supported sharing it with the Council in December; valuable as a complement to in-person outreach metrics; may be helpful to track over time to identify trends or impacts of communication changes

### Citizen Science Research Priorities

- Staff provided background on the citsci research priorities and process used to update them
- Staff walked through current research priorities with a respective example and feedback provided when citsci research priorities were updated in 2023 as well as feedback from CitSci Projects AP October 2025 webinar; Committees discussed and provided feedback on each of the current priorities; key points from the feedback provided for each priority are summarized below

## CURRENT RESEARCH PRIORITIES

### **CitSci Research Priority: *Age Sampling***

- **Support keeping as a research priority**
- Age sampling from the recreational sector remains a critical data gap
- Broad list of target species; may be helpful to prioritize to narrow focus; to help prioritize species – suggestions to look for largest data gaps, where limited fishery independent data are available, and assessment needs
- If project developed suggest starting with one species as a pilot to test feasibility
- Agreement that otolith collection by fishermen would be challenging and could be a barrier to participation; otolith removal can be challenging (especially for some species) even with experience and training
- Fin clip data collection or carcass drop off programs would be easier and more feasible methods for citizen scientists to gather biological samples for ageing; some agencies / partners already have programs in place (e.g., carcass collection) so should look at existing programs and explore opportunities to collaborate
- Noted that research methods to age fish from fin clips is promising but still developing
- Sampling design would be critical for a successful project; collaboration with data end users during project design would be critical
- Projects of this nature would be logistically complex – would require multiple partners (fishermen, ageing labs, data end users); biological samples need to be collected, stored, processed, and analyzed

### **CitSci Research Priority: *Discard Information***

- **Support keeping as a research priority**
- Better information on released fish remains a high priority for many Council managed species; these data can be challenging to collect data outside of citsci / cooperative research methods
- Recommend adding Spanish Mackerel under target species due to SEDAR 78 highlighting recreational discard data needs
- Recommend adding tournaments to target volunteers; may be a good avenue to explore for project promotion and volunteer recruitment
- CitSci data on released fish is already proving useful in scientific and management contexts (e.g., SEDAR 90 South Atlantic Red Snapper - SAFMC Release and MyFishCount data)
- Feedback loop back to participants on data usage is critical; these communications may help increase participation as well
- Noted additional avenues being explore to collect data on discards (e.g., ACCSP pilot catch card program); there has been communication with projects leads – catch card focused on species not included in SAFMC Release

### **CitSci Research Priority: *Genetic Sampling***

- **Support keeping as a research priority**

- Could consider combining with the ‘ageing’ priority when research methods to get ages from fin clips are further developed
- Recommend adding King Mackerel under target species due to research need identified during the Mackerel Port Meetings to explore whether the ‘mixing zone’ has shifted
- Target species would depend on data use (e.g., stock ID vs species ID vs ageing (in future)); may be helpful to delineate target species by potential data use
- AP members noted it may be most helpful to focus on species where there is limited fishery independent sampling and/or where fishermen are catching fish in areas/ways not captured through fishery dependent sampling; focus on filling holes; CitSci staff can work with other staff and partners to work towards prioritizing / narrowing down the target species
- Fin clip sampling well suited for citsci; sampling and storage is less complex than other biological samples; several successful projects have partnered with fishermen to gather fin clips; genetic sampling evolving and likely able to provide more data over time (e.g., ageing)
- Projects of this nature would be logistically complex – would require multiple partners (fishermen, genetics labs, etc); biological samples need to be collected, stored, processed, and analyzed

#### **CitSci Research Priority: *Fishing Infrastructure Inventory***

- **Recommend removing as a CitSci Research Priority for now**
- AP members agreed this was a critical issue but may be best addressed initially via dedicated social science research
- After foundational work is complete - a citsci approach could potentially provide supplemental info, help fill data gaps, and/or help update info over time
- AP members noted some data collection has been done in the South Atlantic states; there is a need to collect consistent data across the region to help inform social analyses for FMPs; first step in a project on infrastructure would be to review the work that has already been done in the region

#### **CitSci Research Priority: *Historic Fishing Photos***

- **Support keeping as a research priority**
- Strong interest shown by fishermen, scientists, and members of public through FISHstory
- FISHstory data proving useful in scientific context (e.g., SEDAR 90 South Atlantic Red Snapper – FISHstory length data)
- Low barrier for participation and high engagement potential
- AI could potentially make analyses easier in future

#### **CitSci Research Priority: *Oral Histories & Historic Fishing Logbooks***

- **Support keeping as a research priority; lower priority**
- Can be a powerful research tool; could be a unique and irreplaceable source of information especially as older fishermen transition out of the industry

- AP noted oral histories require specific training and methods – so if project is developed, training would need to be a key component so information would be gathered in a systematic way
- AP noted more recent oral histories and logbooks could also provide valuable information; discussed whether or not ‘historic’ should be removed from the priority or whether it would be helpful to include a target time period within the priority; recommended keeping ‘historic’ as it helps sets the expectation for time period relevance and prevents potential tension around sharing more recent logbooks which may be sensitive
- If project developed under this priority – it would be important to consult with fishermen to see what data/info they would be comfortable sharing
- AP member noted recent SFA report supported sharing more anecdotal information with NOAA Fisheries to inform decision making; projects like these may help gather info like this in a systematic way
- Potential issue with recall bias – having ‘rose colored glasses’ for the past; this may be less of an issue when documenting how fisheries operated over time, improvements in technology, etc.

**CitSci Research Priority: *Oceanographic & Environmental Data Collection***

- **Support keeping as a research priority**
- Information increasingly important with environmental changes; could collect data on finer scale and help fill gaps not captured by fixed buoys or satellites
- Passive gear mounted data loggers could reduce burden and increase participation
- Some info collected by data logger could be sensitive (e.g., specific location); would be critical to address and work through participant concerns on data privacy
- Examples of successful projects in other regions where these type of data have helped inform assessments (e.g., eMOLT)
- Noted technology to collect these data getting less expensive (e.g., data loggers)

**CitSci Research Priority: *Shifting Species & Rare or Data-Limited Species Observations***

- **Support keeping as a research priority**
- These types of data will be increasingly important due to environmental changes that may be impacting species’ ranges
- Valuable and relevant research area for citsci; noted there are examples of successful fisheries efforts in other regions (e.g., Gulf Stream Orphan ID) and within other disciplines (birding communities)

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

- **Support keeping as a research priority**
- Projects in this area could be considered a mix of cooperative research and citizen science
- Noted there were projects underway in the South Atlantic focused on Spawning Special Management Zones (SSMZs) and project in the Gulf collaborating with recreational anglers
- Noted these types of data could be helpful in informing Council decisions on SSMZs (set to sunset in 2027)

- There could be enforcement challenges with projects allowing fishing / data collection in closed areas; may be better suited for smaller group participation
- AP discussed whether or not to keep 'compliance / effort monitoring' as a data need due to potential sensitivities in sharing this type of information; noted technology (e.g., satellite imagery) may allow these types of data to be collected more passively which may help alleviate these sensitivities

**CitSci Research Priority: *Movement and Migration***

- **Support keeping as a research priority; emphasis on supporting already existing programs**
- Many examples of successful tagging programs (federal, state, private) – tagging is popular among fishermen and provides a positive engagement experience
- Keeping on the list provides a way to highlight target species of interest for Council

**CitSci Research Priority: *Shark and Mammal Depredation***

- **Support keeping as a research priority**
- Strong interest in this issue from fishermen; Sweeney Tookes et al. research found this was topic fishermen would be willing to gather info on; shark depredation idea submitted through CitSci Project Idea Portal
- Could provide helpful insight on concern impacting fisheries in many areas
- AP members noted additional avenues are being explored to collect these data (e.g., depredation being incorporated into MRIP (in 2026 via new disposition codes; additional question may potentially be added in 2027)

**CitSci Research Priority: *Habitat Characterization***

- **Support keeping as a research priority, lower priority**
- Noted some concerns about the quality and usefulness of photos; noted it would be important to collaborate with researchers / data end users early on to ensure data collected would be useable in management context
- Could be valuable in supporting broader ecosystem understanding; may be easier to develop project if volunteers can easily integrate in their existing equipment

**CitSci Research Priority: *Spiny Lobster Data***

- **Support keeping as a research priority**
- Recommend adding 'local and regional movement' to the data needed due to updated Council Research & Monitoring Plan
- Support GA north focus area where data are more limited; AP members mentioned potential for migratory shifts – seeing lobsters in Carolinas more frequently
- Could be a good diver project

BRAINSTORM ADDITIONAL CITSCI RESEARCH PRIORITIES & DATA NEEDS

- AP was asked to brainstorm additional research and data needs that could potentially be addressed through citsci; members reviewed ideas discussed when the research priorities were discussed in 2023 and other ideas that have come up during Council related meetings
- AP discussed possibility of incorporating ‘seafood labeling’ research priority; group agreed this was an important issue impacting South Atlantic fisheries and the need for education and outreach to help address this issue – but didn’t think it was a good fit for a CitSci research priority and that it would be best tackled via other avenues; members noted there are other groups (e.g., Good Catch Program at SC Aquarium) working to help address this issue

#### **Next Steps for Updating CitSci Research Priorities**

- **Oct 16:** CitSci Operations AP meets & provides feedback
- **Oct 23:** DRAFT Updated CitSci Research Priorities sent out for review
- **Nov 6:** Edits on research priorities due to Julia
- **Nov 14:** DRAFT Updated Cit Sci Research Priorities finalized for SAFMC review

#### **Citizen Science Program Update**

- Staff provided a brief update on CitSci Program and project activities over the past several months

#### **Citizen Science Program Growth and Capacity**

- AP members discussed current status, challenges and future direction of CitSci Program – focusing on how to expand capacity, sustain growth, and how to strategically plan for the next phase of the Program
- Program has made significant progress over the past 10 years – launching multiple projects, meeting important milestones, expanding and strengthening partnerships and engagement within fisheries communities
- Workload is starting to exceed current capacity and staff; efforts are underway to try and expand support through part time positions funded through grants and internships
- AP members brainstormed ways to enhance Program capacity and gain efficiencies; ideas included:
  - Expanding creative partnerships to share and leverage resources
  - Exploring ‘friends of’ organizations to help fundraise and outreach efforts (although there are limitations/restrictions on this for Council)
  - Better utilizing ASMFC MOU to pursue new grant/funding opportunities
  - Consider pursuing public-private partnerships with external entities
- **AP members supported having a dedicated CitSci Program Planning Workshop to look at how to strategically grow the Program and tackle some of the challenges around capacity and funding**

- Planning workshop could review past achievements and progress; identify next steps for sustainable growth and staffing; engage new and existing partners, APs, and creative collaborators; develop actionable priorities and deliverables for capacity building
- Small steering committee could help design and coordinate workshop and identify invitees
- Workshop should use interactive facilitation tools to maximize engagement
- May be helpful to hold a pre-workshop webinar to review background materials and program history to help participants prep for the workshop
- In-person workshop would be ideal but would likely need to find outside funding; virtual format could be used if needed
- Staff will share planning workshop recommendations with senior staff and report back to the AP on potential next steps

**Webinar Attendance:**

AP Members: Scott Baker, Wally Bublely, Kathy Knowlton, Will Heyman, Bob Zales

Council Members: Amy Dukes, Kerry Marhefka

Other Attendees: Matt Seeley, Alan Bianchi

Council Staff: Julia Byrd, Meg Withers, Judd Curtis