

# Citizen Science Program: DRAFT INDICATORS

In 2020, the Citizen Science Operations Advisory Panel (AP) developed draft indicators of success to support the monitoring and evaluation of the Citizen Science Program. These indicators are primarily focused on outputs, reflecting the direct products of Citizen Science Program activities.

This document has been updated to reflect general feedback received from the Citizen Science Operations AP during their May 2025 webinar meeting. The original indicator document from the May 2025 meeting is available [HERE](#).

Indicators (in bold font below) are grouped under the relevant CitSci Program goals and represent staff’s initial suggestions for key indicators to monitor on a regular basis under each goal. For some indicators, staff have included example graphics. Additional indicators that the AP discussed in May 2025 are found in the Appendix on pg 7.

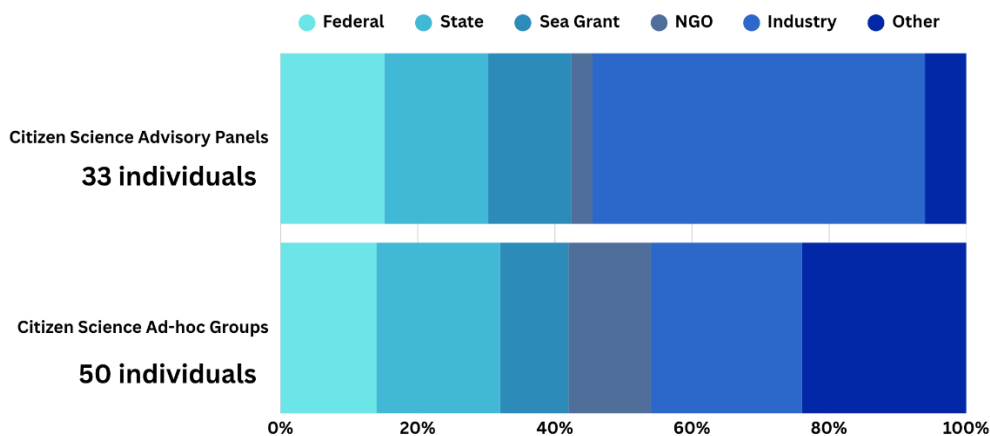
Please note: All measures and graphics here are drafts and will require further refinement before being finalized.

## **GOAL 1: DESIGN, IMPLEMENT, AND SUSTAIN A PROGRAM FRAMEWORK TO GUIDE THE DEVELOPMENT OF PROJECTS THAT SUPPORT FISHERY MANAGEMENT DECISION MAKING**

**CitSci Program organizational infrastructure was developed to include the SAFMC Citizen Science Committee, Citizen Science Advisory Panels, and ad-hoc work groups and these groups met, as needed.**

- Per feedback from the May 2025 CitSci Operations meeting it may be more meaningful to track the number of people & organization types that have contributed to the development and implementation of the in CitSci Program committees, APs, and ad-hoc groups over time – rather than the number of meetings; can help demonstrate how the Program is involving others in their efforts and including working to include many different perspectives
- Example graphic:

**Number of people that have served on Advisory Groups for the CitSci Program by organization type**



### Number of external programs that have used CitSci Program policies and procedures

- New idea for indicator based on discussion from May 2025 CitSci Ops webinar – as a different way to track use of Program’s SOPPS; could help demonstrate the Program is supporting citsci efforts more broadly and is looked to as an example
- Example measurements could include:
  - Program worked collaboratively with multiple partners to develop the SciFish platform’s policies and procedures that were based largely on CitSci Program’s SOPPS
  - Program has shared Program and Project support resources with SCDNR
  - Program asked to be collaborator on proposal with Skipper Science (Alaskan based fisheries citizen science program) to participate in virtual workshop to share Program perspectives and lessons learned

### Number of invitations to present on CitSci Program and/or serve on CitSci focused work groups

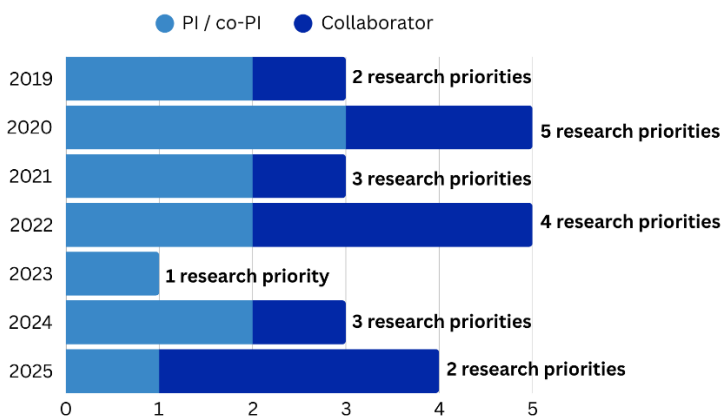
- Could help demonstrate that Program is supporting citsci efforts more broadly and is looked to as an example
- Example measurements could include:
  - Council staff have been invited to present 9 times on the Citizen Science Program at local, regional, national, and international meetings and workshops
  - Staff have served on two citizen science related working groups and as an advisor to the Federal Land Management Inter-Agency Citizen Science working group

## GOAL 2: FACILITATE THE DEVELOPMENT OF INDIVIDUAL PROJECTS TO ADDRESS SPECIFIC RESEARCH PRIORITIES

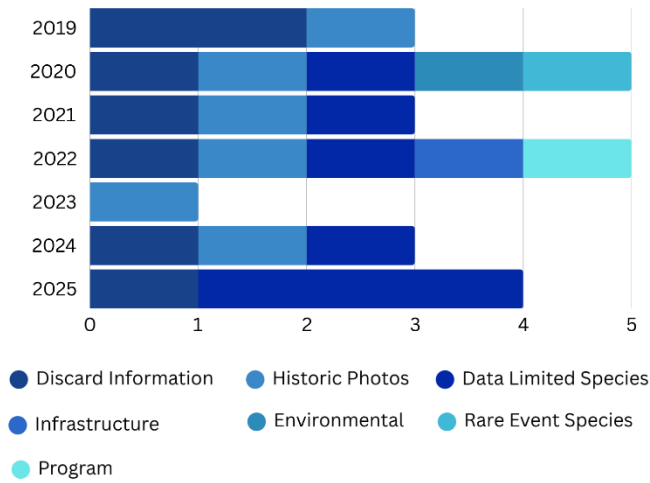
### Number of proposals that have been submitted by year

- Based on feedback from the May 2025 meeting, this metric includes the number of proposals submitted by year and the number unique research priorities addressed through those proposals; the metric currently includes all proposals regardless of whether funding was received
- Example graphics show proposal count by role and by research priority

### Number of proposal submissions by or in collaboration with the CitSci Program



**Number of proposal submissions by or in collaboration with the CitSci Program by research priority**



**Number of citizen science projects that have been developed**  
**Diversity of research priorities that have been addressed through projects**  
**Number of SAFMC Fishery Management Plans that have been addressed through a CitSci project**

- Example graphic highlighting these three indicators is below

**Projects developed by or in collaboration with CitSci Program**

3 projects



Addressing 3 different research needs

Discard Information

Historic Fishing Photos

Data limited species

Filling data gaps across 3 Fishery Management Plans



Snapper Grouper



Coastal Migratory Pelagics



Dolphin Wahoo

Plus



Development of SciFish mobile app



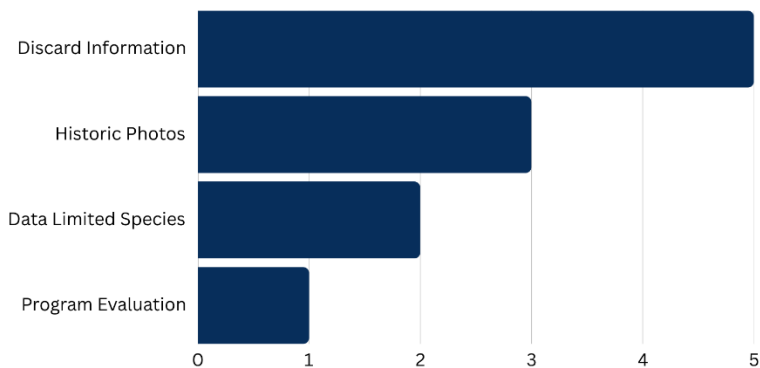
&

Collaboration on Dolphin Wahoo Participatory Workshops led by NOAA

**Number of external funding sources received (e.g., non-SAFMC budget)**

- Example graphic shows number of external grants received by research priority

**Number of external grants CitSci Program has received by research priority**



\*Plus: MOU with the Atlantic States Marine Fisheries Commission which provides more flexibility in opportunities to fund the Program and projects

**GOAL 3: ENSURE THAT DATA COLLECTED BY PROJECTS ARE ACCESSIBLE, ROBUST, AND FIT FOR PURPOSE**

**Number of projects that have been considered and/or recommended for use in assessment or management**

- Original indicator was worded: *Citizen science projects have contributed to science needed for management by filling # identified research gaps that have informed management decisions for # species/species complexes*
- Changed indicator language based on feedback from May 2025 CitSci Operations meeting; will track by project, data type, species, and data usage
- Example graphic below:

**SEDAR 68 (South Atlantic Scamp) Assessment: Spring 2020**



**SEDAR 90 (South Atlantic Red Snapper) Assessment: April 2025**



Recommended for use

Research recommendations

Recommended for use

Research recommendations

	<p>✘*</p> <p>✔</p>	<p>✔</p> <p>✔</p>
	<p>Not applicable</p>	<p>✔</p> <p>✔</p>

\*SAFMC Release started in June 2019, so limited data were available from the project. Although the data weren't recommended for use in the assessment, SEDAR 68 Data Panelists found the info useful when interpreting trends in other data sources.

**GOAL 4: FOSTER MUTUAL LEARNING, COLLABORATION, AND PROGRAM ENGAGEMENT.**

Based on feedback from the May 2025 Citizen Science Operations AP meeting, staff consolidated and simplified the volunteer, partner, and communication indicators into a smaller set of key indicators that can be consistently tracked over time.

**Number of volunteers by project and volunteer activity**

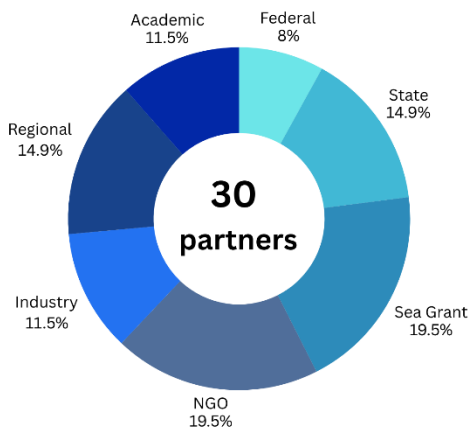
- Volunteers would include individuals participating in projects – participation could include data collection, project design, data validation, etc.
- This consolidates and simplifies the following indicators from the May 2025 meeting:
  - *Number of stakeholders involved in development of CitSci projects*
  - *Number of volunteers who were recruited for the program.*
  - *Number of volunteers who were trained through the program.*
  - *Number of volunteers retained in the program.*
- Example graphic highlighting number of volunteers and different ways they are contributing to projects



**Number of partners contributing to the Citizen Science Program**

- Partners would include any entity (e.g., organization, business, agency) aiding and propelling the CitSci Program in a positive direction; could track by organization type, activity, and number of collaborations
- This consolidates and simplifies the following indicators from the May 2025 meeting:
  - *Number of new partnerships that were created*
  - *Number of partners that continue to be part of Program*
  - *Number of partners by organization or type*
- Example graphic shows partners by organization type

**Citizen Science Program partnerships by organization type**



### Number of outreach activities CitSci Program has conducted or collaborated on

- Could track outreach activities by year, location, and type of activity (e.g., seminars, tabling events, presentations, scientific conferences, etc.); could help measure reach of communication and outreach plan
- Example graphic shows outreach activities by type

### Outreach activities by CitSci Program and collaborators



### Online reach for Program

- Can help measure reach of communication and outreach plan
- Example measurements could include:
  - Number of Program and project webpage views
  - Number of QR code scans
  - Social media analytics

## APPENDIX: Additional Program Indicators by Goal

Currently staff suggest not monitoring these indicators on a regular basis, in part due to capacity.

### GOAL 1: DESIGN, IMPLEMENT, AND SUSTAIN A PROGRAM FRAMEWORK TO GUIDE THE DEVELOPMENT OF PROJECTS THAT SUPPORT FISHERY MANAGEMENT DECISION MAKING

#### SOPPS adopted by Council and updated as needed.

- Citizen Science Program SOPPS were initially adopted by the Council in Dec 2018. The Citizen Science Research Priorities within the SOPPS have been updated in 2019, 2021, and 2023. The Program vision, mission, goals, and objectives were updated in December 2020.

#### Research Priorities updated every two years using process identified in SOPPS.

- Citizen Science Research Priorities were initially adopted by the Council in 2018. They have been updated following the process outlined in the SOPPS (with the exception of the 'Project Idea Portal') in 2019, 2021, and 2023.
- The Citizen Science Project Idea Portal launched in 2024 and ideas submitted through the portal will be used to help update the Citizen Science Research Priorities in fall 2025.

### GOAL 2: FACILITATE THE DEVELOPMENT OF INDIVIDUAL PROJECTS TO ADDRESS SPECIFIC RESEARCH PRIORITIES

#### Diversity of project participants / audiences

- Fishermen (SAFMC Release & FISHstory)
- General public (FISHstory)
- Recreational divers (SMILE)

#### Number of times Program is approached for a letter of support or endorsement letter

- Letters of support have been provided for four projects focusing on four different research priorities (shark depredation, oceanographic/environmental/weather conditions, data limited species observations, and observations in managed areas).

#### Number of ideas submitted through Project Idea Portal.

- Project Idea Portal launched in summer 2024 with limited promotion; two ideas have been submitted through the portal to date

#### Number of matchmaking successes (e.g. connecting stakeholders/groups for project development).

- One direct matchmaking success - helped connect TNC with researchers at LGL consultants who developed a cooperative project in collaboration with the Council to collect information on spawning special management zones in the South Atlantic

### GOAL 4: FOSTER MUTUAL LEARNING, COLLABORATION, AND PROGRAM ENGAGEMENT.

#### Additional indicators that could help measure reach of communication and outreach plan

- Number of articles/blogs written about the program or projects;
- Number of attendees / views from presentations and webinars;
- Number of attendees at outreach activities
- Number of publications

**Number of new stakeholders that were engaged. These stakeholders come from # of different organizations including (list affiliations).**

- Intent is to measure how the CitSci Program has helped expand Council reach outside of those typically involved in Council process; this will be more challenging to measure – could try to track if participation in CitSci Program encourages participation in broader Council activities; wonder if easier to measure with ‘outcome’ indicators