

## SAFMC Citizen Science Program Planning

The SAFMC Citizen Science Program’s vision, mission, goals, objectives, and strategies were adopted by the SAFMC in December 2020. The document provides an overview of the Program’s activities under each goal and objective that have been conducted since 2019. Green plus signs identify the strategies under each objective where Program activities have occurred.

**Vision Statement:** Advancing science and increasing trust, one project at a time.

**Mission Statement:** To build and maintain a program that improves information for fisheries management through collaborative science.

### **GOAL 1: Design, implement, and sustain a program framework to guide the development of projects that support fishery management decision making.**

Objective & Strategies	Citizen Science Program Activities mid-2019 – Sept 2024
<p><b>Objective 1.1: Establish organizational infrastructure to provide program administration and oversight.</b></p> <ul style="list-style-type: none"> <li>+ Create a Council Citizen Science Committee to provide overall program direction and authority.</li> <li>• Create a Citizen Science Program Advisory Panel to advise program policies related to scientific goals and integrity and operational processes.</li> <li>+ Create a Citizen Science Operations Committee to develop and review program policies, procedures, goals, and objectives.</li> <li>+ Create a Citizen Science Projects Advisory Committee to identify research needs across fishery management plans, assist with volunteer engagement strategies, and serve as outreach ambassadors for the Program.</li> <li>+ Appoint a Citizen Science Advisory Panel Pool with broad interest and expertise in areas of program development.</li> </ul>	<ul style="list-style-type: none"> <li>• Have an active CitSci Committee that all Council members currently serve on. Typically meet 1-2 times per year.</li> <li>• CitSci Program Advisory Panel has NOT yet been created.</li> <li>• Have an active CitSci Operations Committee that typically meets twice per year to provide programmatic guidance. New appointments/reappointments were made in December 2023 and September 2024.</li> <li>• Have an active CitSci Projects Advisory Committee that typically meets once per year to help identify research needs across FMPs and provide input on volunteer engagement and outreach activities. New appointments/reappointments were made in December 2024.</li> <li>• Have an active CitSci Pool. Many original CitSci pool appointments have rotated off the Committee. New appointments were made in December 2023 and September 2024.</li> <li>• No active ad-hoc or ‘action teams’ are currently appointed. Ad-hoc groups have not been appointed since the original A-Teams</li> </ul>

<ul style="list-style-type: none"> <li>+ Assign Action Teams as needed from the Citizen Science Advisory Panel pool to assist in development of program framework and resources.</li> </ul>	<p>worked on development of the program.</p>
<p><b>Objective 1.2: Develop program procedures, policies, and tools.</b></p> <ul style="list-style-type: none"> <li>+ Create program Standard Operating Procedures and Practices (SOPPs).</li> <li>+ Establish and maintain a citizen science research needs prioritization process that includes bi-annual review.</li> <li>• Create a Citizen Science Project Endorsement Program.</li> </ul>	<ul style="list-style-type: none"> <li>• CitSci Program SOPPS were developed and have been adopted by the Council. The Council updated SOPPS in Dec 2020 (updated vision, mission, goals objectives). <a href="#">SOPPS</a> are available on the Program webpage.</li> <li>• CitSci research priorities have been updated following a similar the process outlined in the SOPPS in 2019, 2021, and 2023. Current <a href="#">CitSci research priorities</a> are available in the SOPPS and on the Program webpage.</li> <li>• Project idea portal component of process was not included in these efforts because it had not yet launched.</li> <li>• CitSci Project Endorsement Program has not been created. In the meantime, the Program has gotten requests for letters of support for proposals.</li> </ul>
<p><b>Objective 1.3: Create a funding strategy that is adaptable to changing circumstances and needs.</b></p> <ul style="list-style-type: none"> <li>+ Develop and regularly review an inventory of project and program funding opportunities (i.e., requests for proposals).</li> <li>• Generate a matrix of funding models (e.g., public-private partnerships and crowdfunding) for program and project needs.</li> </ul>	<ul style="list-style-type: none"> <li>• An inventory of project and program funding opportunities has been developed. It hasn't been updated since 2022.</li> <li>• A matrix of funding models has not been generated for program and project needs.</li> <li>• CitSci Program has identified and applied to RFPs where the Council can receive direct funding. Additionally, the Program has collaborated on RFPs where it does not receive compensation.</li> <li>• CitSci Program has continued to work on a MOU with ASMFC to expand funding opportunities for the Program. Final language will be shared with ASMFC for review and signature in the upcoming weeks.</li> </ul>

**GOAL 2: Facilitate development of individual projects to address specific research priorities.**

Objective & Strategies	Citizen Science Program Activities
<p><b>Objective 2.1: Publish and broadly disseminate the SAFMC’s citizen science research priorities.</b></p> <ul style="list-style-type: none"> <li>+ Post priorities to the program webpage, social media, and external outlets (e.g., citizen science listservs).</li> <li>+ Share priorities with Council Advisory Panels, SSC, and SEP.</li> <li>+ Distribute priorities to Program partners (State Sea Grant, state and federal agencies, etc.) via an annual report.</li> </ul>	<ul style="list-style-type: none"> <li>• CitSci research priorities are available on the Program’s webpage, social media platforms, Annual Report, and South Atlantic Bite newsletter.</li> <li>• CitSci research priorities are included in the Council’s overall research and monitoring plan which is shared with the SSC and APs and provided to NOAA.</li> <li>• When organizations and/or individuals approach the program for potential partnerships/collaborations, the CitSci research priorities are shared to identify possible overlapping research areas of interest.</li> </ul>
<p><b>Objective 2.2: Implement the SAFMC’s Citizen Science Project Endorsement Program.</b></p> <ul style="list-style-type: none"> <li>• Develop a launch strategy to announce and promote the Program.</li> <li>• Publish endorsement criteria and process on Program webpage.</li> <li>• Establish an ad-hoc review committee to evaluate endorsement applications.</li> </ul>	<ul style="list-style-type: none"> <li>• CitSci Project Endorsement Program has not been created yet. Program has gotten requests for letters of support for proposals.</li> </ul>
<p><b>Objective 2.3: Provide project support resources (best practices, templates, etc.) and project development guidance.</b></p> <ul style="list-style-type: none"> <li>+ Publish resources on the program webpage.</li> <li>+ Review and update support resources, as needed.</li> <li>• Distribute resources to program partners annually via Council communication outlets (e.g., newsletter, social media).</li> <li>• Provide project development guidance via webinars, YouTube videos, virtual ‘office hours’, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• <a href="#">CitSci program and project support resources</a> are available on the Program’s webpage. CitSci research priorities have been updated every two years per the SOPPS.</li> <li>• Project resources are shared with individuals / organizations as requested.</li> <li>• Program staff presents projects at various workshops, seminars, meetings, and conferences (local, national, and international).</li> <li>• Program staff have informally provided input/advice to organizations developing citizen science projects.</li> <li>• Program staff led a collaborative effort with multiple partners to develop the SciFish platform’s policies and procedures, which were largely based on the CitSci Program’s SOPPS.</li> </ul>
<p><b>Objective 2.4: Encourage collaboration by diverse teams of stakeholders (scientists, fishermen, managers, etc.) to develop</b></p>	<ul style="list-style-type: none"> <li>• Four projects have been developed under the CitSci Program: <a href="#">SAFMC Release</a>, <a href="#">FISHstory</a>, <a href="#">SMILE</a> (led by REEF organization), and</li> </ul>

**projects.**

- + Require internal Council citizen science projects to use a Design Team with diverse expertise during project development and implementation.
- Help identify and connect stakeholders for project development (e.g., matchmaking).
- + Develop and implement a Citizen Science Project Idea Portal.

development of [SciFish platform](#) (now led by ASMFC/ACCSP).

- All projects (internal and external) developed through or in collaboration with the CitSci Program have used Design Teams for project design and development.
- CitSci Program helped coordinate efforts for the [Dolphin Wahoo Participatory Workshops](#) which helped lead to NOAA's Dolphin MSE.
- [Citizen Science Project Idea Portal](#) was launched in April 2024 via the Program webpage. 'Soft' launch was done (e.g., limited promotion via Council communication platforms). There have been limited submissions thus far.
- Program staff have connected a few organizations and scientists with similar research interests (e.g., TNC with LGL consultants for Spawning SMZ research).

**GOAL 3: Ensure that data collected by projects are accessible, robust, and fit for purpose.**

Objective & Strategies	Citizen Science Program Activities
<p><b>Objective 3.1: Implement program guidelines that address data management, standards, quality, and accessibility.</b></p> <ul style="list-style-type: none"> <li>+ Ensure project support resources include clear data guidelines.</li> <li>• Share data guidelines with all projects the Program supports and/or endorses.</li> <li>• Develop minimum data standards that projects must meet to be supported/endorsed by the program.</li> <li>• Develop draft data accessibility agreements and incorporate into project resources available online.</li> </ul>	<ul style="list-style-type: none"> <li>• Data requirements documents have been developed for individual projects.</li> <li>• Minimum data standards across projects have not been developed</li> <li>• Draft accessibility agreement documents have not been incorporated into the project resources available online</li> </ul>
<p><b>Objective 3.2: Review project results to determine if data meet project and/or Program needs.</b></p> <ul style="list-style-type: none"> <li>+ Develop and implement a process to review project results.</li> <li>• Share summary results of review with the Citizen Science Committee to publicly highlight how data meet Council needs.</li> <li>• Develop an adaptive process to help projects produce data that address project and/or Program goals.</li> </ul>	<ul style="list-style-type: none"> <li>• CitSci Program has not developed a formal process to review project results. Annual data summaries and pilot project results have been presented at Council meetings, seminars, and conferences.</li> <li>• FISHstory length methods have been presented to SAFMC SSC. REEF will tentatively present SMILE methodology and preliminary data at Spring 2025 SSC meeting.</li> <li>• Data for SAFMC Release and FISHstory will be analyzed and presented at the upcoming SEDAR 90 (South Atlantic Red Snapper) Data Workshop. FISHstory data are included in the statement of work for the next SEDAR South Atlantic King Mackerel assessment.</li> </ul>
<p><b>Objective 3.3: Document the contribution of citizen science projects and data to specific SAFMC research priorities and science and management decision making.</b></p> <ul style="list-style-type: none"> <li>+ Develop and maintain project inventory that includes, project research priority and how/if data have been used in science and management.</li> <li>• Distribute summary of project inventory highlighting data usage in annual report.</li> </ul>	<ul style="list-style-type: none"> <li>• Project inventory started. Limited CitSci project data have been considered for use thus far. SAFMC Release data were considered for use in SEDAR 68 (South Atlantic Scamp Research Track assessment) in 2020. SAFMC Release started in June 2019 so only limited data were available. They were not used directly in assessment, but data helped describe fishery and helped interpret trends in other data sources. FISHstory and SAFMC Release data will be considered for use in upcoming SEDAR 90 (South Atlantic Red Snapper).</li> </ul>

**GOAL 4: Foster mutual learning, collaboration, and program engagement.**

Objective & Strategies	Citizen Science Program Activities
<p><b>Objective 4.1: Promote opportunities for learning among diverse constituents.</b></p> <ul style="list-style-type: none"> <li>+ Support and encourage development of projects on a range of research priorities.</li> <li>• Utilize ideas collected via the Project Idea Portal &amp; matchmaking service to promote mutual learning.</li> <li>• Host open discussion (e.g., webinars) with interested stakeholders to share project results, lessons learned, what stakeholders/project participants have learned from each other, etc.</li> </ul>	<ul style="list-style-type: none"> <li>• Projects have been developed addressing three different CitSci research priorities: discard information (SAFMC Release), historical photos (FISHstory), and data limited species observations (SMILE). The projects also engage different audiences: fishermen in all sectors (SAFMC Release), broader public &amp; fishermen (FISHstory), and recreational divers (SMILE).</li> <li>• Citizen Science Project Idea Portal launched in April 2024 and limited ideas have been submitted to date.</li> <li>• Project results have been shared with participants via annual summaries, infographics, seminars, webinars, etc.</li> </ul>
<p><b>Objective 4.2: Foster existing partnerships and develop new partnerships to support both program and project goals.</b></p> <ul style="list-style-type: none"> <li>• Create partnership development best practices.</li> <li>+ Encourage clear lines of communication between partners.</li> <li>• Conduct informal reviews/evaluations of partnerships.</li> <li>+ Explore broader citizen science platforms (e.g., Scistarter) for partnerships that help connect volunteers to projects.</li> </ul>	<ul style="list-style-type: none"> <li>• Have not developed partnership best practices but have been able to expand Program partners via projects and outreach efforts (e.g., REEF, NC State, SEFSC, Sea Grant, Council BFP).</li> <li>• Program does best to ensure honest and transparent communication between partners. Try to ensure all collaborators are in agreement on project goals, roles, responsibilities, etc. at the start of partnership.</li> <li>• Have partnered with SciStarter and Zooniverse to promote FISHstory and SAFMC Release projects.</li> </ul>
<p><b>Objective 4.3: Strive to enhance trust among scientists, managers, and fishermen.</b></p> <ul style="list-style-type: none"> <li>+ Encourage transparent communication among stakeholders.</li> <li>+ Manage expectations for programmatic and project level activities.</li> <li>+ Develop a method to evaluate trust among Program participants.</li> <li>• Ensure best practice guidelines address building trust among</li> </ul>	<ul style="list-style-type: none"> <li>• Strive for clear communication with project participants and stakeholders on project goals, how project data could or could not be used, and potential impacts. Try to keep expectation management front of mind.</li> <li>• Working to build relationships with key stakeholders, organizations, etc. via outreach efforts for projects and broader Council initiatives; trying to go into fishing communities (e.g., tackle shop visits, seminars partnering with leaders in fishing communities, fishing expos, etc.)</li> <li>• Collaborate with Bonney and Sweeney Tookes et al. to gather</li> </ul>

<p>project participants.</p>	<p>baseline data on stakeholders' knowledge about, attitudes, perceptions, and trust in citizen science in fisheries management.</p>
<p><b>Objective 4.4: Engage new categories of stakeholders that are not typically involved in the Council process.</b></p> <ul style="list-style-type: none"> <li>+ Identify approaches to promote the program and individual projects outside of the Council's normal communication methods.</li> <li>• Develop a mechanism to track engagement across stakeholder categories.</li> </ul>	<ul style="list-style-type: none"> <li>• Working to build relationships with key stakeholders, organizations, etc. via outreach efforts for projects and broader Council initiatives; trying to go into fishing communities (e.g., tackle shop visits, seminars partnering with leaders in fishing communities, fishing expos, fishing industry distributors, etc.)</li> <li>• Collaborate with broader citizen science organization (e.g., SciStarter, Zooniverse)</li> <li>• Work to get articles / blogs in variety of media publications</li> </ul>
<p><b>Objective 4.5: Develop Citizen Science Program volunteer engagement (recruitment, training, retention) strategies, products, and activities using best practices outlined by the Citizen Science Action Teams.</b></p> <ul style="list-style-type: none"> <li>+ Develop communication tools (e.g., Citizen Science Corner in SAFMC newsletter, #CitSciFri, annual report) to maintain volunteer awareness of program and project activities.</li> <li>• Develop a method and approach to better understand the interests, capacity, and expectations of potential volunteers.</li> <li>+ Design and implement a volunteer recognition program.</li> <li>• Compile available resources on volunteer engagement.</li> <li>• Develop a matrix for determining what type of volunteer training and delivery approach is needed for different levels of projects.</li> <li>• Develop a list of potential and appropriate volunteer incentives.</li> <li>+ Identify appropriate options for the program to share project data results and present data visualizations to volunteers.</li> </ul>	<ul style="list-style-type: none"> <li>• Share programmatic and project information via South Atlantic Bite newsletter, #CitSciFri via social media, annual report, annual data summaries, monthly project newsletters, etc.</li> <li>• When feasible, have gathered information from volunteers on how they heard about projects to help evaluate recruitment strategies</li> <li>• Developed and implemented Participant Recognition Program (PRP) for SAFMC Release project; in FY25 ACCSP proposal developed options for variety of volunteer incentives through PRP to help with volunteer retention</li> <li>• Project findings have been shared via webpages, annual data summaries, annual reports, social media; presentations/posters at Council and other agency meetings, workshops, seminars, and conferences</li> </ul>