



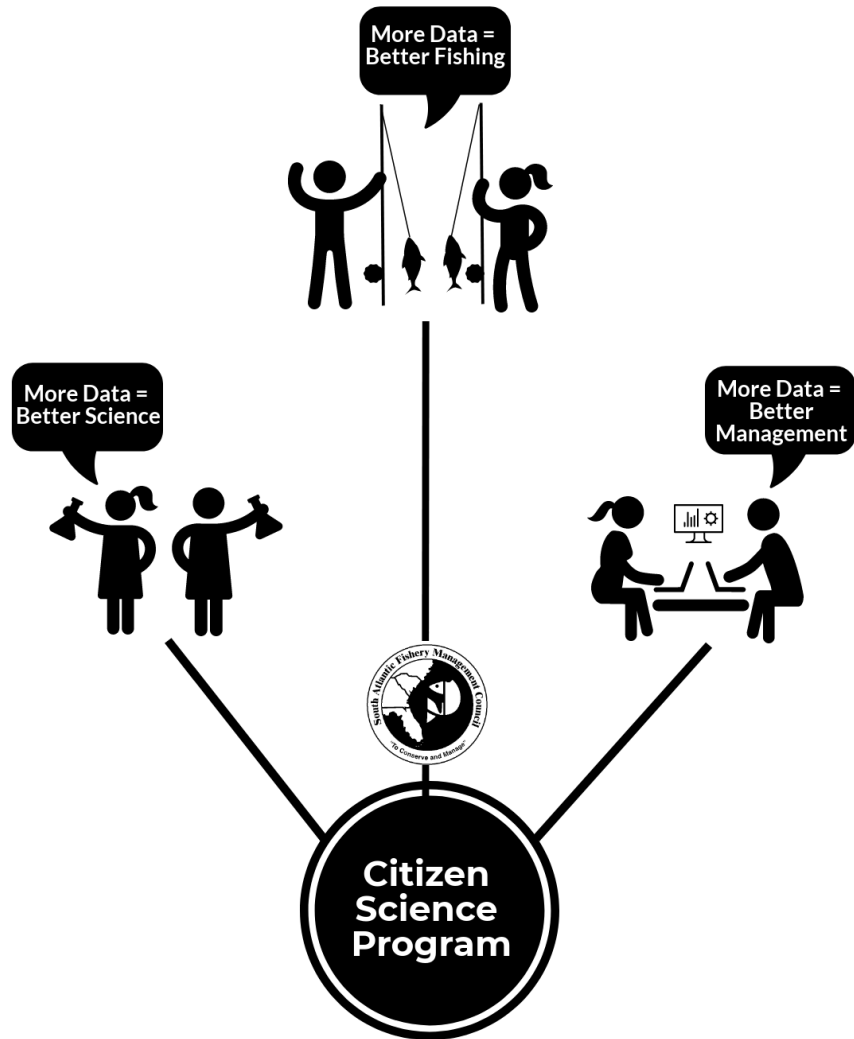
# *South Atlantic Fishery Management Council* **Citizen Science Program**

**Information & Education AP Meeting**

**January 2019**



# Activities 2018



## Program infrastructure

- *Citizen Science Action Teams – program components*

## Partnership Development

- *Program and project-level funding opportunities*

## Pilot Project

- *Funding secured March 2018*
- *Project to address scamp discards*

**Cit Sci Research Priorities Adopted**

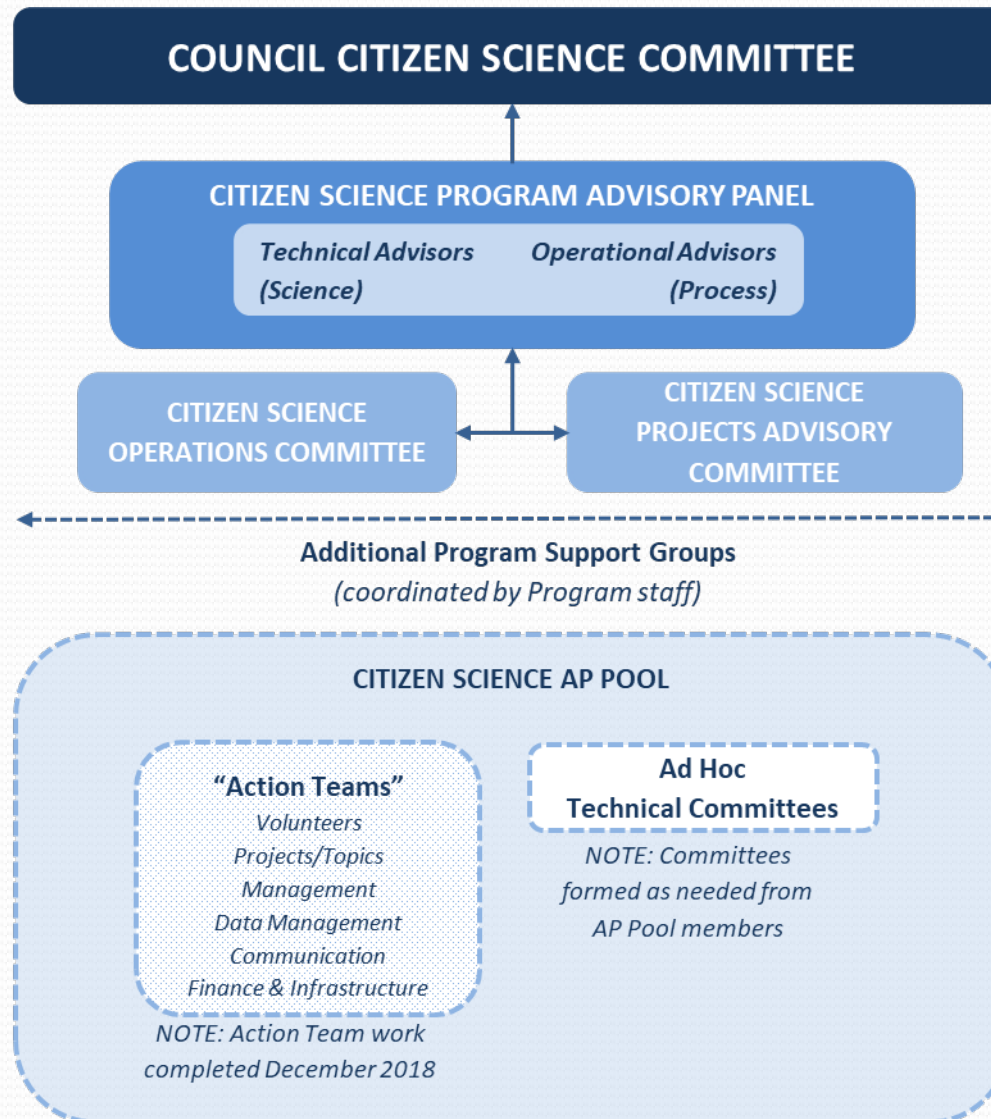
**Operations Committee Meeting**

**Cit Sci Program SOPPs Adopted**

# PROGRAM Level - A-Team Products



A-Team:	Templates:	Inventories:	Additional items:
<b><i>Data Management</i></b>	<ul style="list-style-type: none"> <li>• Data standards</li> <li>• QA/QC</li> <li>• Data requirements</li> </ul>	<ul style="list-style-type: none"> <li>• Data management resources by agency</li> </ul>	<ul style="list-style-type: none"> <li>• Options for data storage</li> </ul>
<b><i>Volunteers</i></b>	<ul style="list-style-type: none"> <li>• Basic volunteer orientation</li> <li>• Training by project type</li> </ul>	<ul style="list-style-type: none"> <li>• Sample approaches for training</li> </ul>	<ul style="list-style-type: none"> <li>• Online Volunteer Interest Form – <i>tool to recruit volunteers</i></li> </ul>
<b><i>Projects/Topics Management</i></b>	<ul style="list-style-type: none"> <li>• Citizen Science research priorities</li> </ul>	<ul style="list-style-type: none"> <li>• Sources for research needs</li> </ul>	<ul style="list-style-type: none"> <li>• Project Endorsement Program</li> <li>• Project review metrics</li> </ul>
<b><i>Finance &amp; Infrastructure</i></b>	<ul style="list-style-type: none"> <li>• Sample operational/programmatic budget needs</li> </ul>	<ul style="list-style-type: none"> <li>• Active list of project/program funding opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• Funding models and sources to pursue</li> <li>• Partnerships to pursue</li> </ul>
<b><i>Communication</i></b>	<ul style="list-style-type: none"> <li>• Project Communication Plan</li> </ul>	<ul style="list-style-type: none"> <li>• Sample outreach/communication approaches</li> </ul>	<ul style="list-style-type: none"> <li>• Samples of approaches for sharing project results</li> </ul>



# Next Steps – 2019 & Beyond

## Partnership Development:

- ✓ ASMFC
- ✓ GRNMS
- ✓ The Nature Conservancy
- ✓ SECOORA

## PROJECTS IN PROGRESS:

- Scamp Release Pilot Project → *Discards*
- **FISHstory** → *Historic Data from Historical Fishing Photos*

## PROJECTS UNDER DEVELOPMENT:

- Genetic sampling & Managed Area Monitoring
- Rare Species Observations





# SAFMC

## Cit Sci Pilot Project: *Scamp Release*

**Engagement:** Work with fishermen and scientists to design a project to collect supplementary data on scamp discards using a mobile app

**Data:** discard data (length, depth, images)

**Use:** consideration for use in 2019 stock assessment



A vibrant underwater photograph showing a diverse coral reef. In the foreground, there are large, colorful coral structures in shades of pink, orange, and yellow. Several small fish are visible swimming in the clear blue water above the reef. The background is a deep blue, suggesting a healthy marine environment.

# Scamp RELEASE Pilot Project: *Planning & Design Team*

PC: Greg McFall, GRNMS

## **Met to map out initial app design and layout:**

- *Fishermen*
- *SE Fisheries Science Center*
- *NC Sea Grant researcher*
- *Harbor Light Software (app developer)*
- *ACCSP (data partner)*
- *Citizen Science Association/ Cornell University (research study partner)*
- *Council staff*

**A-Teams developed plans for the project** – *Communication, Volunteer Training, Data Management*

## **Research Study with Cit Sci Association/Cornell University:**

- *Dr. Jennifer Shirk – documenting process and how it supports projects*
- *Rick Bonney –developing evaluation metrics for the project*

# PILOT PROJECT Level - A-Team Products



A-Team:	Support Materials:	Plans:	Additional items:
<i><b>Data Management</b></i>	<ul style="list-style-type: none"> <li>Mobile application &amp; API development documents</li> </ul>		<ul style="list-style-type: none"> <li>Partnership development with ACCSP</li> </ul>
<i><b>Volunteers</b></i>	<ul style="list-style-type: none"> <li>Basic orientation materials on Council, cit sci, data collection</li> <li>Fact sheet on scamp</li> </ul>	<ul style="list-style-type: none"> <li>Training plan – approaches and materials</li> </ul>	
<i><b>Projects/Topics Management</b></i>		<ul style="list-style-type: none"> <li>Project Development Plan</li> </ul>	<ul style="list-style-type: none"> <li>Partnership development with researchers</li> </ul>
<i><b>Finance &amp; Infrastructure</b></i>			<ul style="list-style-type: none"> <li>Partnership with funders</li> </ul>
<i><b>Communication</b></i>	<ul style="list-style-type: none"> <li>Implementation Plan – frequency, social media, timing of project phases</li> </ul>	<ul style="list-style-type: none"> <li>Communication Plan – approaches, key messaging</li> </ul>	

**\*\*Project Planning Team** - Members from A-Teams served on the Team





# RELEASE

*Mobile application to collect lengths on  
scamp grouper discards*





# Lessons Learned...So far!

- 
- A photograph of a fish with dark spots on a lighter body, swimming over a colorful coral reef. The fish is positioned on the left side of the frame, facing right. The background is a vibrant underwater scene with various coral and sea anemones in shades of red, orange, and green.
- Project Design & Planning Team critical
  - Data and science partners involved from the start
  - Fishermen keeping project based in reality
  - Experts with track record
  - Collective agreement on measures of success
  - Managing expectations!



# Project FISHstory

Photo credit: Rusty Hudson



**Documenting historic catch and length estimates from historical photos in the for-hire sector using electronic data collection and imagery analysis platforms and crowdsourcing approaches.**





Photo credit: Rusty Hudson

## **PROJECT OBJECTIVES/METHODS:**

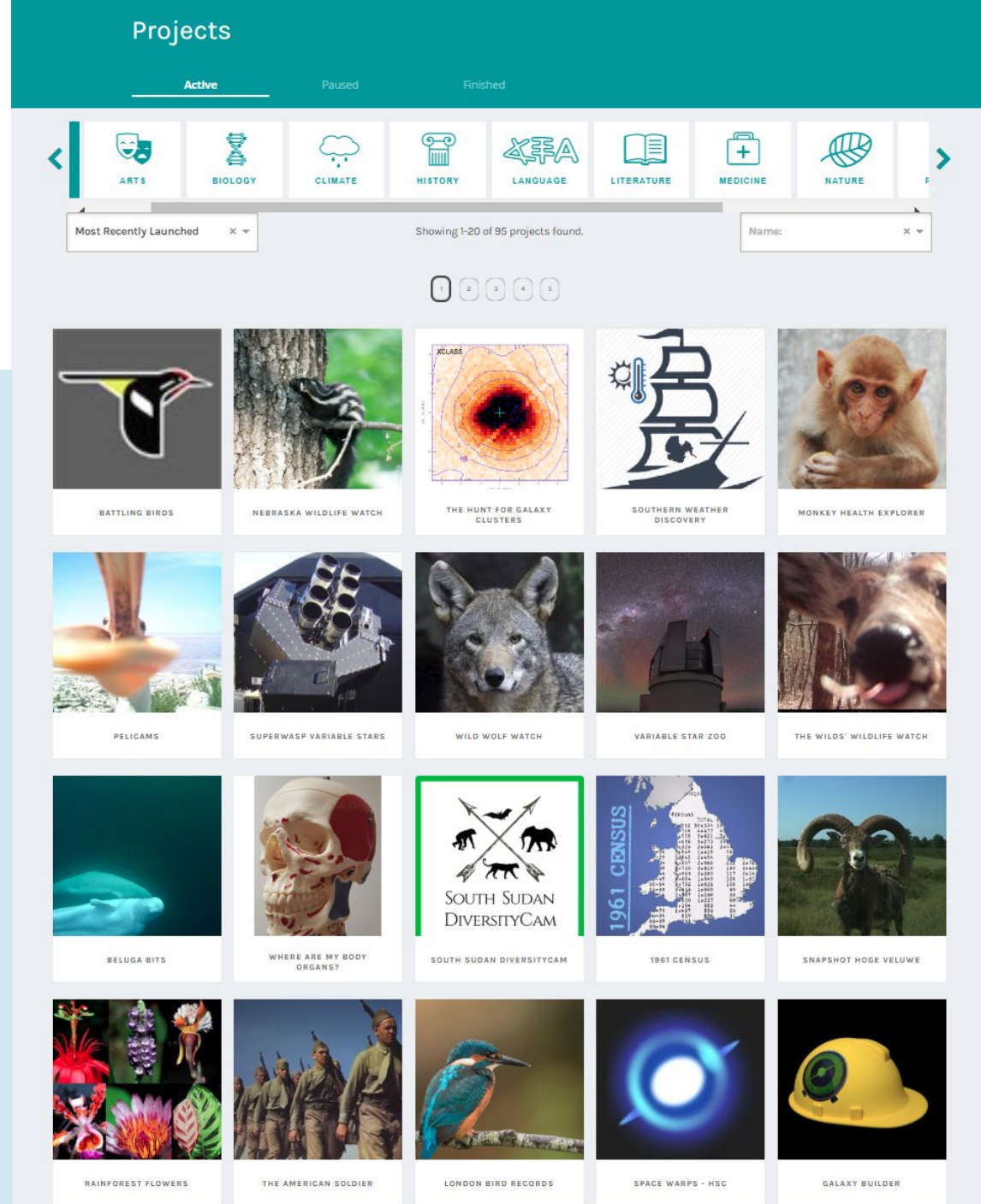
- Fill in historical data gap – headboat photos from 1940s-70s; prior to fishery dependent surveys
- Species composition analysis
- Crowdsourcing
- Expert validation team
- Length analysis of one key species



# ZOONIVERSE

## *Crowdsourcing Platform*

- Build project online
- Develop tutorials/training
- Citizen Scientists analyze images
- Validation
- I.D. key species for length analysis





# IMAGE 'J'

- Open source image processing program

## Methods:

- Establish standards
- Measure lengths

Photo credit: Rusty Hudson





# Keep Up with Projects & the Program!

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<http://safmc.net/citizen-science-initiative/>