

# Community Science Sea Grant Network Meeting

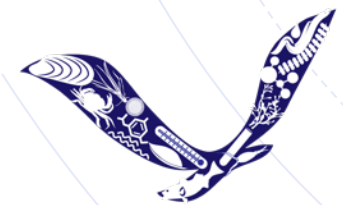
Sea Grant **MAY**  
Virtual Meeting **14**  
3-5 pm EST

## Agenda (in EDT)

- 2:45 Room Opens
- 2:50 WebEx Tutorial
- 3:00 Welcome and Updates
- 3:15 Building the Network
- 4:00 CS Program Platform
- 4:30 Breakout Groups
  - (1) Data Management
  - (2) Building Federal Partnerships
  - (3) How to Best Share CS Stories
- 4:50 Next Steps Discussion
- 5:00 Adjourn

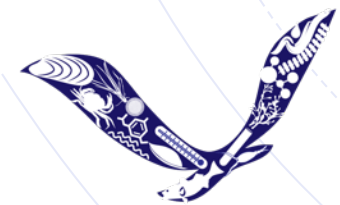
# WELCOME

*Hello all! Please enter a greeting to the chat box that includes your name and affiliation so that we can introduce ourselves.*



# CS Network Accomplishments

- Compiled program inventory & success stories
- CS Network Listserv
- Webinar with National WQ Monitoring Council
- CS Session & Meeting at SGW
- CS Session & Meeting at CSA
- Collab with NOAA CS CoP
- Receipt of Special Projects \$
- Launch of SG CS website
- Vision & Liaison Proposals



## Break-out Groups:

### (1) Data Management

Alyson Eberhardt (NHSC)

### (2) Building Federal Partnerships

John McLaughlin and Laura Oremland (NOAA)

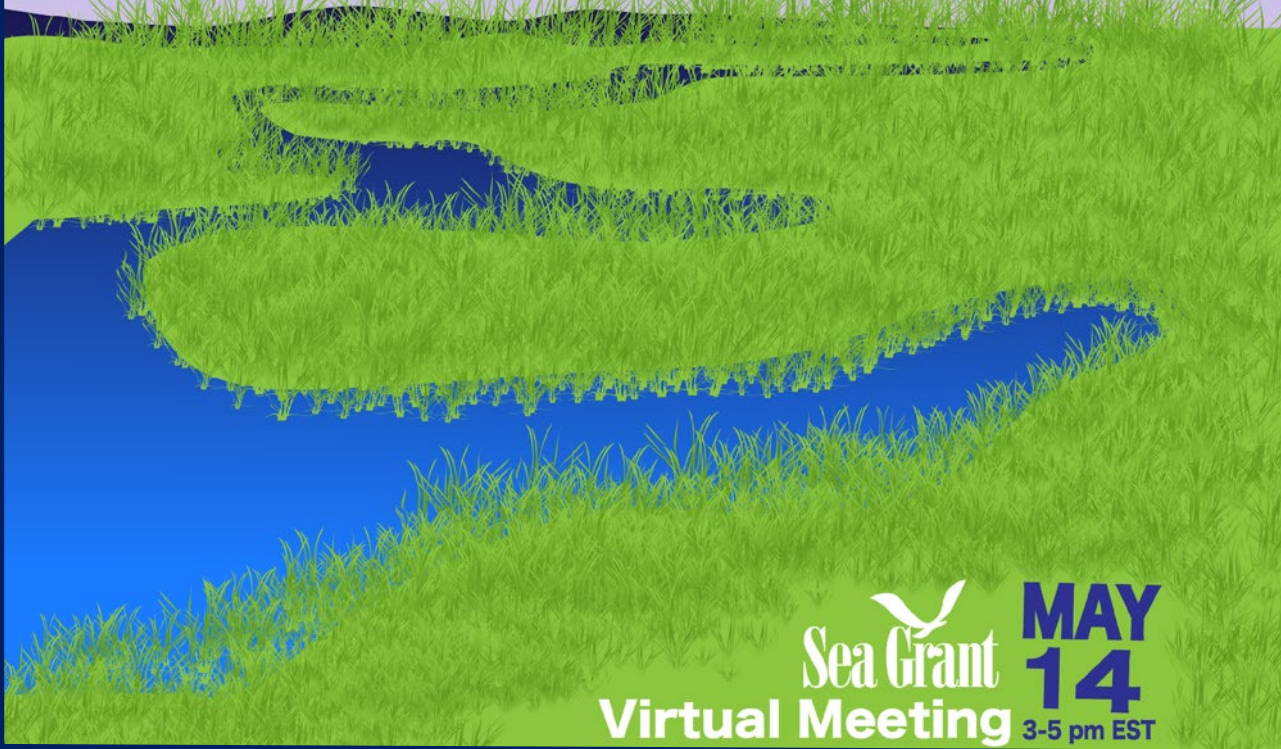
### (3) How to Best Share CS Stories

Dani Dilullo (LASG)

## Next Steps Discussion

- Updates on Proposals
- Plans for CS Network Meeting

# Community Science Sea Grant Network Meeting



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Feel free to follow up  
with any of the  
presenters and  
thank you for joining!

# Building the Network: Past, Present and Future

# SG CS VISION WORKSHOP

SANTA BARBARA, CA  
MARCH 2018

Name	Sea Grant Program	Position	Email
<b>Network Vision Workshop Leads</b>			
Kristen Grant	Maine	Marine Extension Associate	kngrant@maine.edu
Monique Myers	California	Coastal Specialist	moniquemyers@gmail.com
<b>Sea Grant Workshop Participants</b>			
Jeff Adams	Washington	Marine Ecologist	jaws@uw.edu
Marissa Bills	California	Research Assistant	mabills@ucsd.edu
Linda Chilton	USC	Education Program Manager	lchilton@usc.edu
Carrie Culver	California	Aquatic Resources Specialist	cculver@ucdavis.edu
Dani Dillullo	Louisiana	Communications Coordinator	ddillullo@lsu.edu
Alyson Eberhardt	New Hampshire	Coastal Ecosystems Specialist	alyson@seagrant.unh.edu
David Hart	Wisconsin	Assistant Director for Extension	dhart@seagrant.wisc.edu
Aaron Howard	California	Program Manager/Lab Assistant	aahoward@ucdavis.edu
Marte Kitson	Minnesota	Extension Educator	mkitson@seagrant.mnstate.edu
Caitlin Manderville	New Hampshire	CS Outreach Coordinator	caitlin@seagrant.unh.edu
Gloria Putnam	North Carolina	Coastal Resources & Communities Specialist	gputnam@seagrant.ncsu.edu
Nick Sadrpour	USC	Science, Research & Policy Specialist	sadrpour@usc.edu
Amanda Sartain	Mississippi/Alabama	Extension Assistant/Marine Debris Specialist	asartain@seagrant.msu.edu
Eric Sparks	Mississippi/Alabama	Coastal Ecology Specialist	eric@seagrant.msu.edu
Kris Stepenuck	Lake Champlain	Extension Program Leader	kstepenuck@seagrant.uvm.edu
<b>Other Agency Participants</b>			
Laura Oremland	NOAA	CS Coordinator	laura.oremland@noaa.gov
Bruce Richmond	USGS	Research Geologist	bruce.richmond@usgs.gov
Julie Vastine	ALLARM	Executive Director	vastine@dickinson.edu
Alison Young	California Academy of Sciences	CS Manager	ayoung@calacademy.org



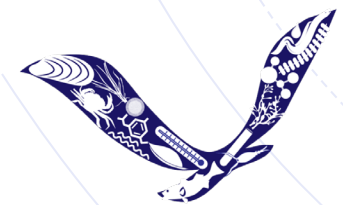
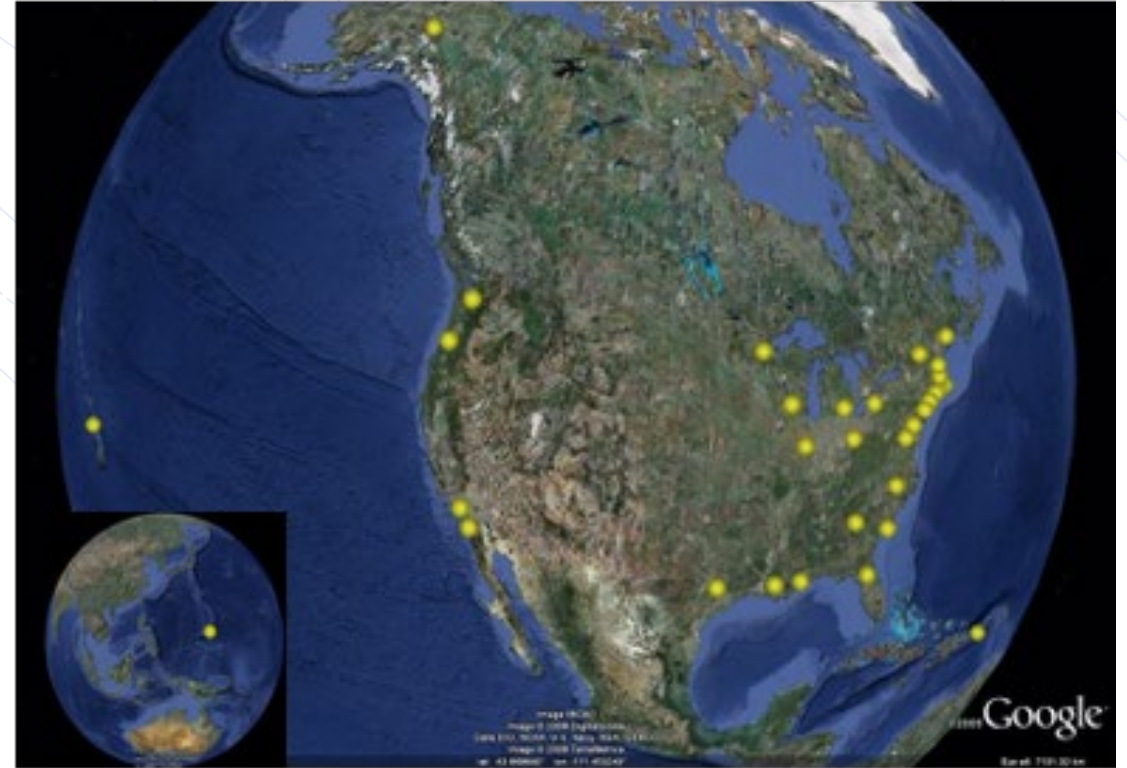
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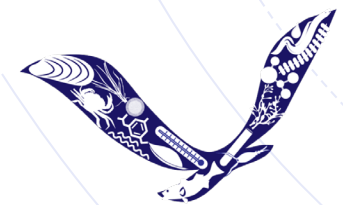
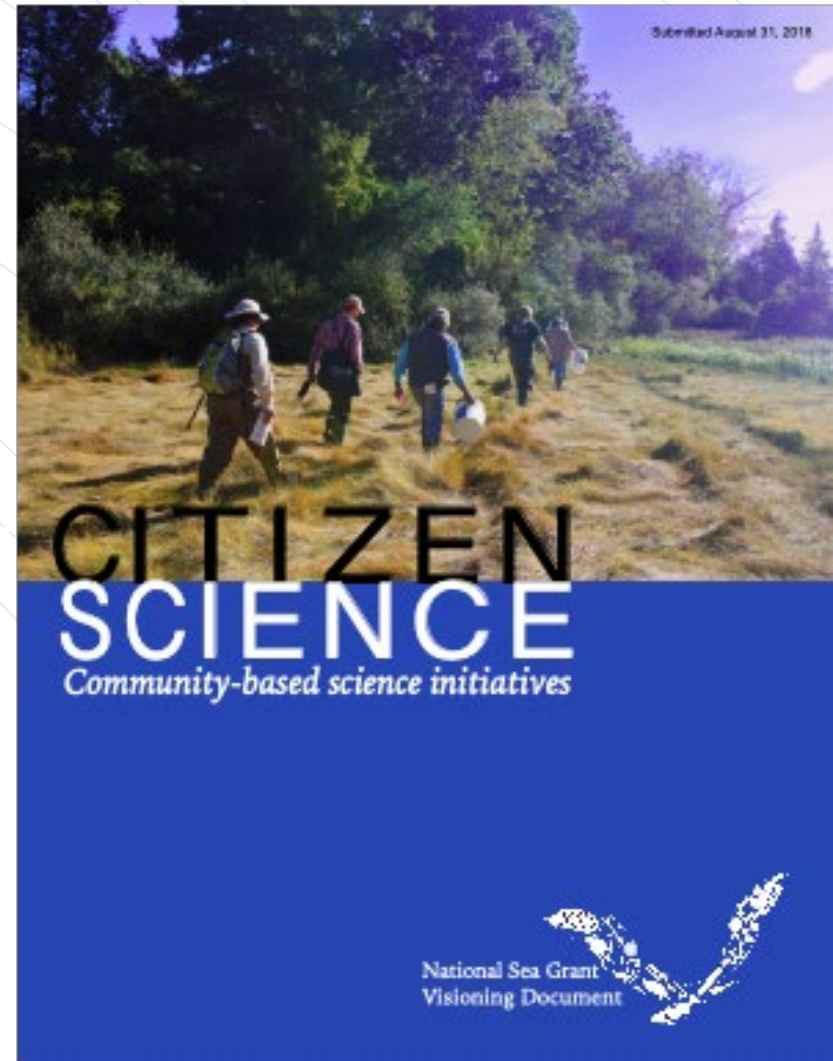
# Sea Grant Community Science a national role

- ~86 CS programs!
- Programs coast-wide
- Non-advocacy, place-based, research-based approach
- We have **a lot** of CS expertise and experience...and there's more!



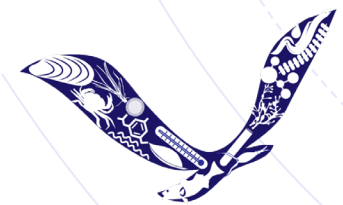
# SG CS VISION REPORT AUGUST 2018

- TO DO:
- \*Network and partnership building
- \*Collaboration between CS programs
- \*Inventory programs
- \*Engage diverse groups
- \*Work with SG-funded researchers
- \*Trainings



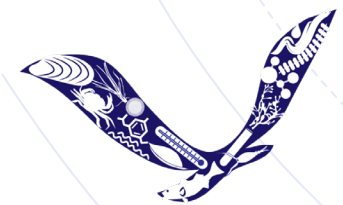
# The Future: Build/Coordinate/Network SG CS Future:

**Diversity Equity and  
Inclusion -Proposing to  
strengthen DEI in SG CS**



# The Future: Build/Coordinate/Network SG CS

**Collaborative/Cooperative Fisheries** – SG travel funds obtained to help expand our CS network



# The Future: Planned Federal Liaison Proposal

## Potential Partners:

NOAA and EPA

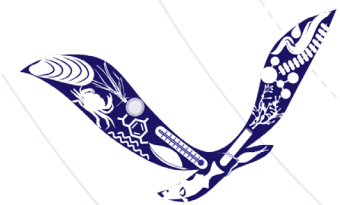
## Potential Products:

Trainings, Data Strategies,  
Greater Cohesion across  
networks and agencies.

**LOI Deadline:** June 25



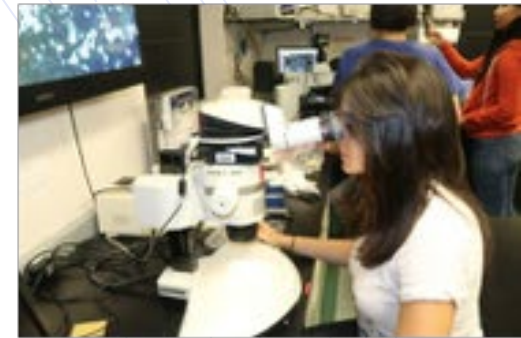
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# Current Projects: CS Website and Publication/Survey

- We want to include all SG CS programs – please help us!
- Do you want to be involved in writing the SG CS publication for *Citizen Science Theory and Practice*?

Contact: Kris Stepenuck (LCSG) [kstepenu@uvm.edu](mailto:kstepenu@uvm.edu) or  
Monique Myers (CASG) [mrmymers@ucsd.edu](mailto:mrmymers@ucsd.edu)



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# Report from the NOAA Citizen Science Virtual Workshop

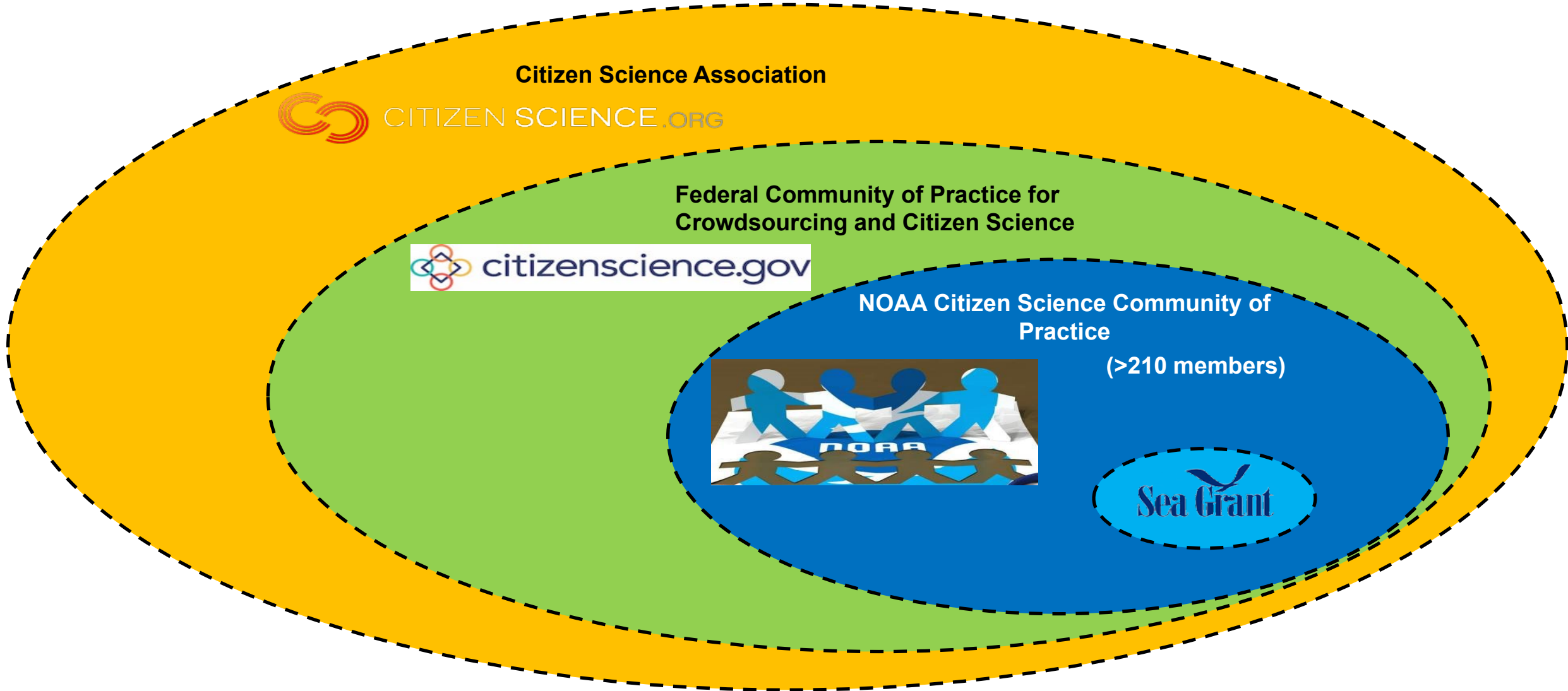
John McLaughlin, NOAA Office of Education

Laura Oremland, NOAA Fisheries Office of Science and Technology

May 14, 2020

# Citizen Science Communities -JM

3





# NOAA Projects

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- **Non-Comprehensive List:** We have identified over 140 projects throughout the agency
  - **68 are from Sea Grant!**
- **CitizenScience.gov Catalog:** 52 projects that NOAA supports reported
  - Report yours please!
- ***Implementation of Federal Prize and Citizen Science Authority: Fiscal Years 2017-18*** report to Congress: 11 of 86 projects (13%) from NOAA
- **Takeaway:** We have a rich, diverse set of projects

# Science and Technology Focus Area

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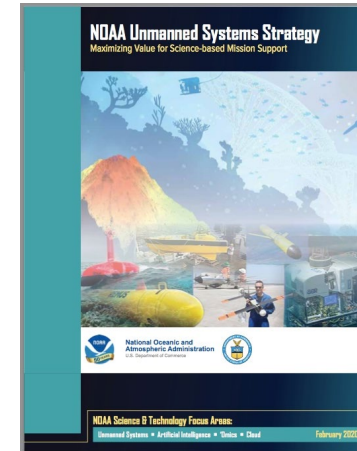
## NOAA releases new strategies to apply emerging science and technology

Public invited to review and provide comments

Across NOAA

SHARE |    

November 14, 2019 —



# April 2020 Workshop Objectives

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- 1) build stronger relationships among community members;
- 2) exchange best practices for use of citizen science and crowdsourcing;
- 3) discuss and document needs of NOAA staff using citizen science;
- 4) review best practices regarding citizen science data quality; and
- 5) inform plans to advance appropriate use of citizen science within the agency.

**RDML Gallaudet (NOAA)**

"Leading Innovation through Citizen Science"



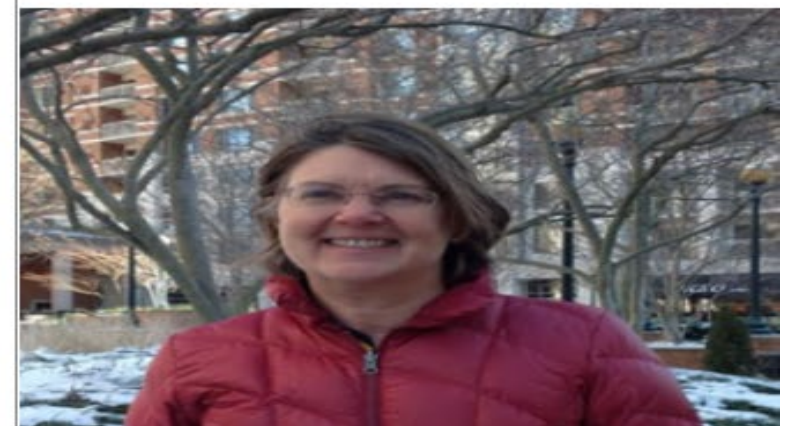
**Marc Kuchner (NASA)**

"Identifying "Super Users" through Citizen Science"



**Louisa Koch (NOAA)**

"Educational Impact of Citizen Science"



# Workshop Participation

7



**3 Day Workshop; 2  
hours/day**

**> 100 participants across  
NOAA**

**8 Regional Sea Grant  
Participants**

**7 Sea Grant Fellows**

# NOAA Citizen Science Strategy

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General agreement on the five draft goals:

- 1. Coordinate and Support Citizen Science Efforts*
- 2. Expand Integration into Agency Operations*
- 3. Promote Data Quality*
- 4. Strengthen Partnerships*
- 5. Increase Workforce Proficiency*

# Workshop Messages We Heard

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- ***General***
  - Build metrics
  - Ensure appropriate data quality
  - Determine data management best practices
  - Partner education w/ research
- ***On Citizen Science Strategy***
  - Incorporate Diversity and inclusion
  - Better connect with tribal groups
  - Only apply citizen science when appropriate
  - Address liability

# Workshop Feedback and Next Steps

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- Majority of feedback stated the workshop was useful and relevant
- Constructive feedback
  - Some participants would have liked it to be more interactive with additional time to network
- Workshop report in development
- Still plan to hold in-person meeting (dates TBD)



# Partner Opportunities / How to connect

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- Join the NOAA Citizen Science CoP
- Include your projects: NOAA Inventory, Citizen Science.gov
- Email us directly

## Federal Crowdsourcing and Citizen Science Catalog

Projects listed in the catalog are validated by federal employees

Number of Projects: 52

Download as CSV

Download as JSON

### Nurdle Patrol

**Status:** Active - recruiting volunteers

**Geographic Scope:** United States, Mexico, and Canada



### GoPro Aquaculture Project

**Status:** Active - recruiting volunteers

**Geographic Scope:** Long Island Sound and other estuaries in...



### Urban Heat Island Mapping

**Status:** Periodically active - recruiting volunteers

**Geographic Scope:** Up to 5 U.S. cities in 2019,...



### Hawaii Bottomfish Heritage Project -...

**Status:** Active - not recruiting volunteers

**Geographic Scope:** Hawaii





# Thoughts and Questions

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# Cooperative/Collaborative Fisheries Research and Community Science:

## Are they the same?



Louisiana Sea Grant



New Hampshire Sea Grant



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Community Science

# Sea Grant Fisheries Research

## Biological/Ecological Research & Modeling

Angel shark, sea urchin, eel, grouper, blue crab

Habitat preferences of juvenile nearshore finfish (CA & OR)

California halibut trawl grounds (SB 1459)

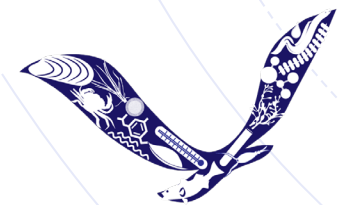


## Human Dimensions

Management Strategies: ITQs, restricted access

Community and infrastructure needs

Socioeconomics



# Sea Grant Fisheries Research

## Most Recently

*Taking collaborative fisheries research to the next level:  
Long-term integration into the management process*

## California Collaborative Fisheries Research Program (CCFRP)

Evaluating MPAs – application to fish stocks

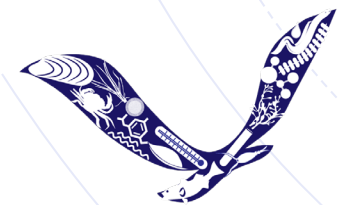
## Collaborative At-Sea Sampling Program (CASP)

## Collaborative Socioeconomic Synthesis & Analysis (CSSA)

Building essential fisheries information for management



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# Sea Grant Fisheries Research



## Collaborative Research Programs (Local, State, Regional)

### California

Fisheries Enhancement Funds (1987)  
Channel Islands Marine Sanctuary Foundation  
Collaborative Research Program (2006)  
Collaborative Fisheries Research – West (2012)

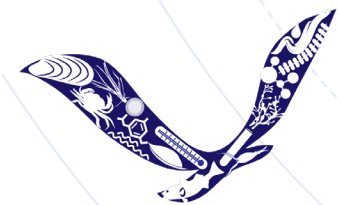


### New England

Southern New England Collaborative Research Initiative (2004)

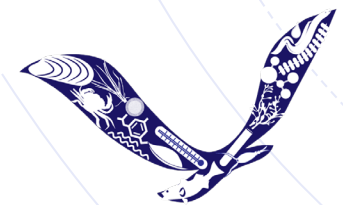
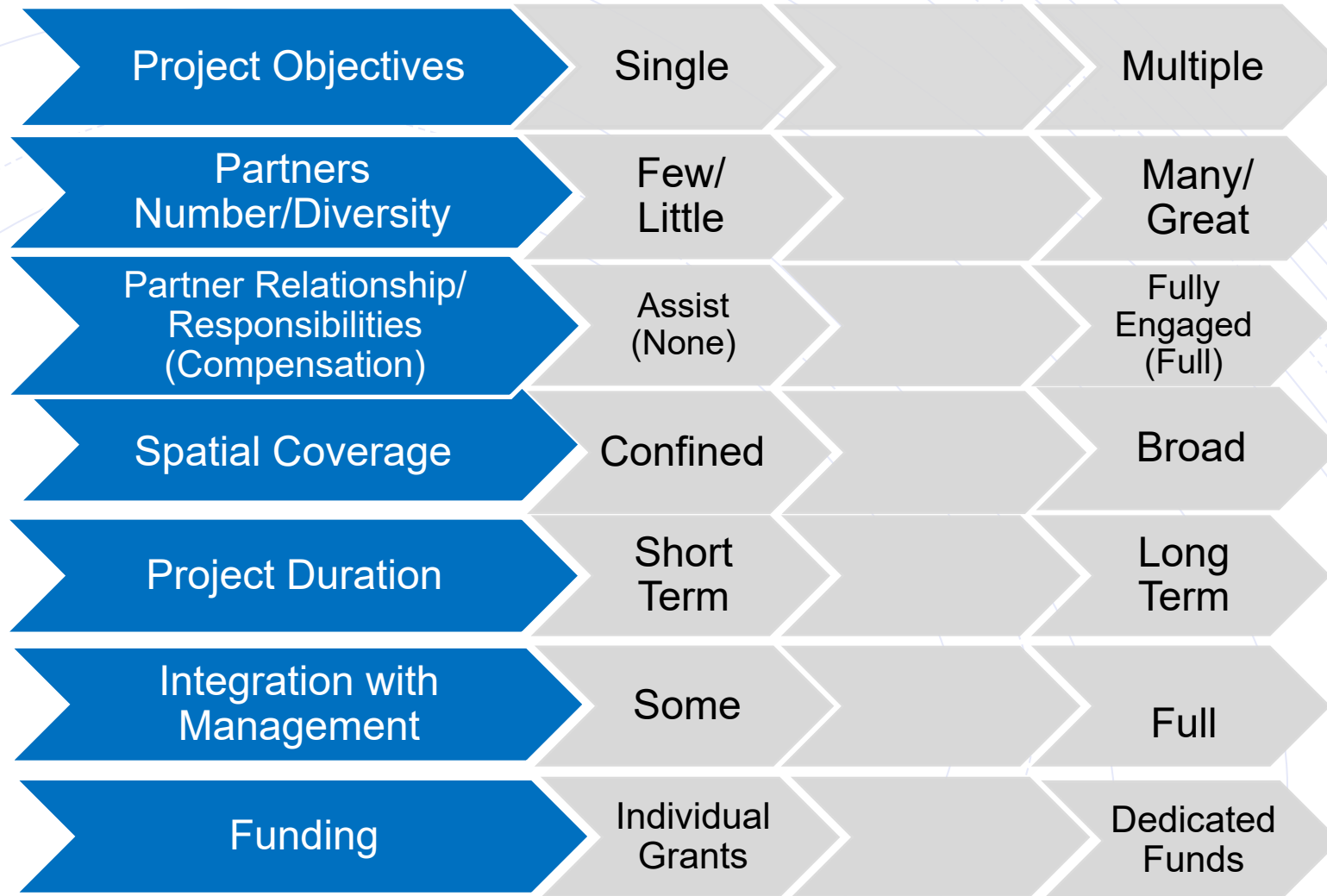
### South Atlantic

South Atlantic Fisheries Management Council - CS program (2016)



# Fisheries Research Continuum

## *Cooperative and Collaborative*



# Models of Community (Citizen) Science

*Limited Role for  
Public Involvement*

*Multiple Opportunities  
for Public Involvement*



## **Contributory**

- » Designed by scientists
- » Public contributes data

## **Collaborative**

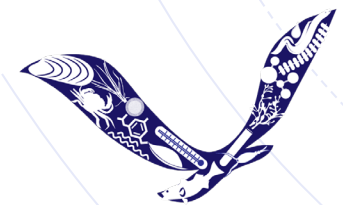
- » Designed by scientists
- » Public contributes data, refines project design, analyzes data, and/or shares findings

## **Co-created**

- » Designed by public with scientific support
- » Public involved in most or all steps of scientific process

*Modified from Julie Vastine  
Sea Grant Network Citizen Science Visioning Plan*

**Sea Grant  
Community Science**



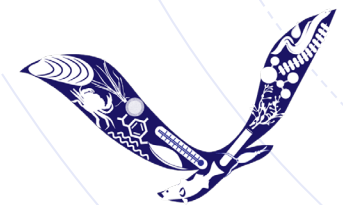
# Future Sea Grant CS Network



Clarify what CS is within Sea Grant

Identify where fisheries research intersects with CS

Build CS programs that are meaningful to management and consider DEI and TLK (using fisheries as test case)





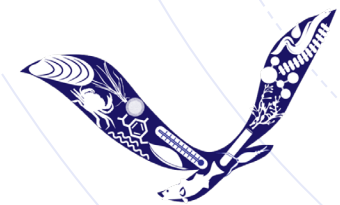
# Creating a SGCS Online Presence: Draft and Feedback Solicitation

# Home/Landing Page



## What is Community Science?

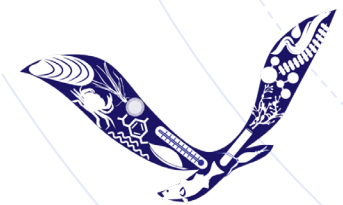
Community Science (also known as Citizen Science, Volunteer Monitoring, Crowdsourcing and many more synonyms) is a way of making the research process more inclusive and accessible to the public. Participants help collect data around a phenomenon of concern—water quality, weather, public health, astronomy, etc.—and through their collective action provide new insights, data sources, discoveries and perspectives. Data is not restricted to just numbers in a spreadsheet, either. Data can be pictures, videos, audio sounds, games and more. While community science projects can vary in size and structure, the goal is to have more people involved in the process of science. There are many global issues that are too big to be solved solely by institutional research. Science needs more boots on the ground, so bringing more people into the process makes for more robust research.



# First Poll: Taglines



1. Real Science. Real Discovery. Coast to Coast.
2. Connecting the Public to Scientific Research.
3. Place-based, community-supported meaningful research.
4. Inclusive science experiences for all.
5. Connecting people to the coast through research.
6. Science supported by America's coastal communities.



# Project Map

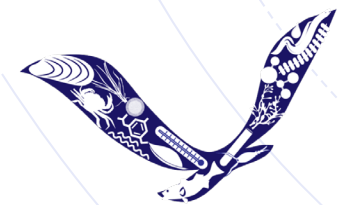
PROGRAM LOCATIONS ▾

Alabama  
Alaska  
California  
Connecticut  
Delaware  
Florida  
Georgia  
University of Guam  
Hawai'i  
Illinois-Indiana  
Lake Champlain  
Law Center  
Louisiana  
Maine  
Maryland  
Massachusetts Institute of Technology  
Michigan  
Minnesota  
Mississippi  
New Hampshire  
New Jersey  
New York  
North Carolina  
Ohio  
Oregon  
Pennsylvania  
Puerto Rico  
Rhode Island

**Goal:** Each program will have their own community science page with information about projects and how to get involved.

**Audience:** People looking to connect to community science projects

Sea Grant  
Community Science

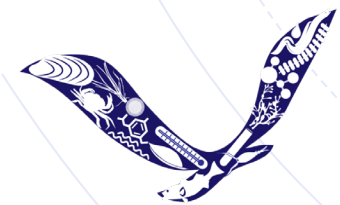


# Individual Sea Grant Program Input



To develop this content so that it reflects your program and region we need your help. Please supply the following:

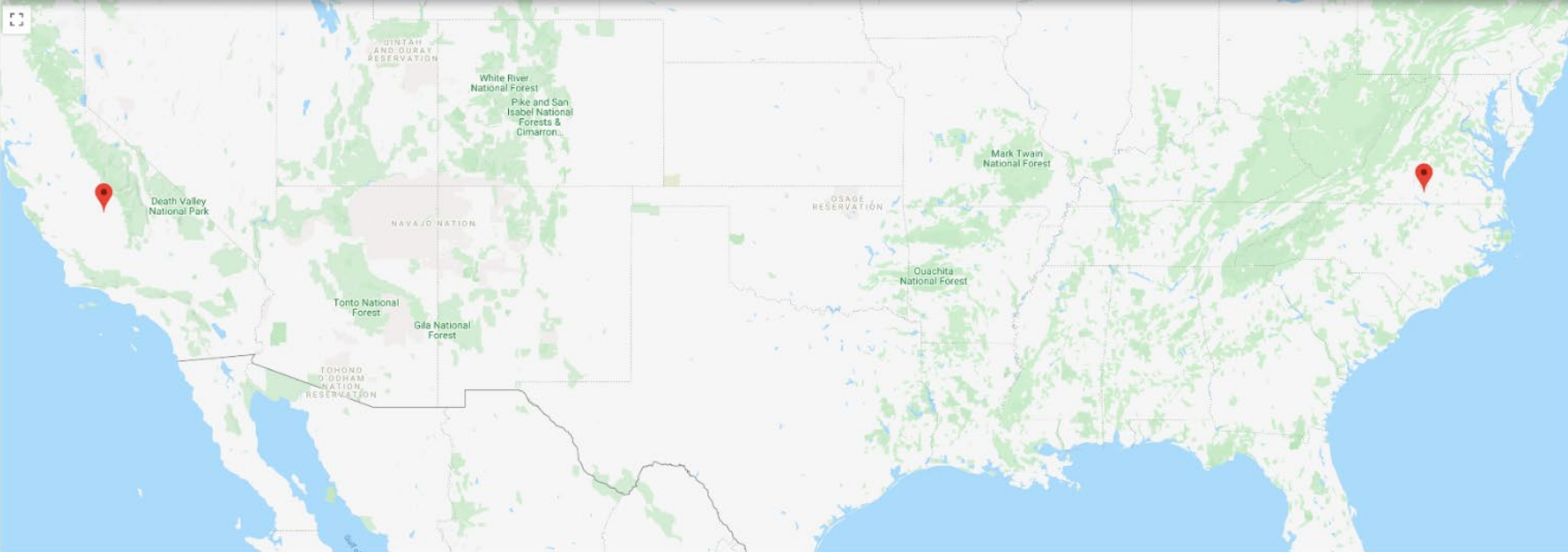
1. Photos! – high resolution (at least 2 MB, more preferred)
2. Program summary highlighting existing projects  
1-2 paragraph summary. Links to project pages (if available)
3. Contact person for your program  
Prefer one person to act as conduit for interest

Send info to: [ddiullo@lsu.edu](mailto:ddiullo@lsu.edu) or the SG CS list-serv.





# SG CS Project Maps

PROJECTS   STORIES      RESOURCES   FAQs   




### Projects

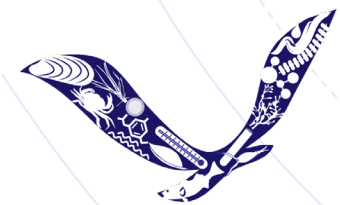
List of teasers of all the project. Sort can be toggle between alpha order (default) and Grouped by program. Projects can be filtered by vocabulary term. Number of terms not more than 20?

Filter by topic

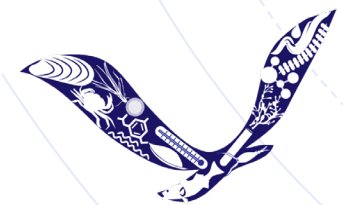
All Topics
Aquaculture and fisheries





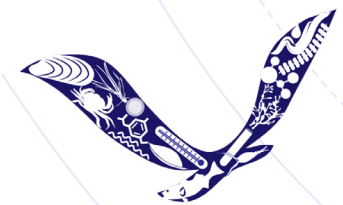
# Categories - Poll 1: Which Categories Apply to Your Program

1. Animal Monitoring
2. BioBlitzes/iNaturalist
3. Climate/Weather
4. Collaborative Fisheries
5. Computer-Based
6. Microplastics/Debris
7. Plant/Seaweed Monitoring
8. Shoreline Monitoring
9. Restoration/Clean-ups
10. Water Quality – Biology
11. Water Quality – Chemistry



# Categories - Poll 2: Which Categories Would You Remove/Edit

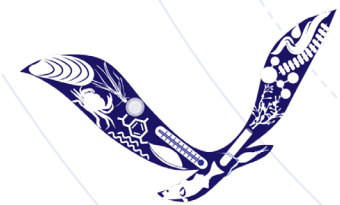
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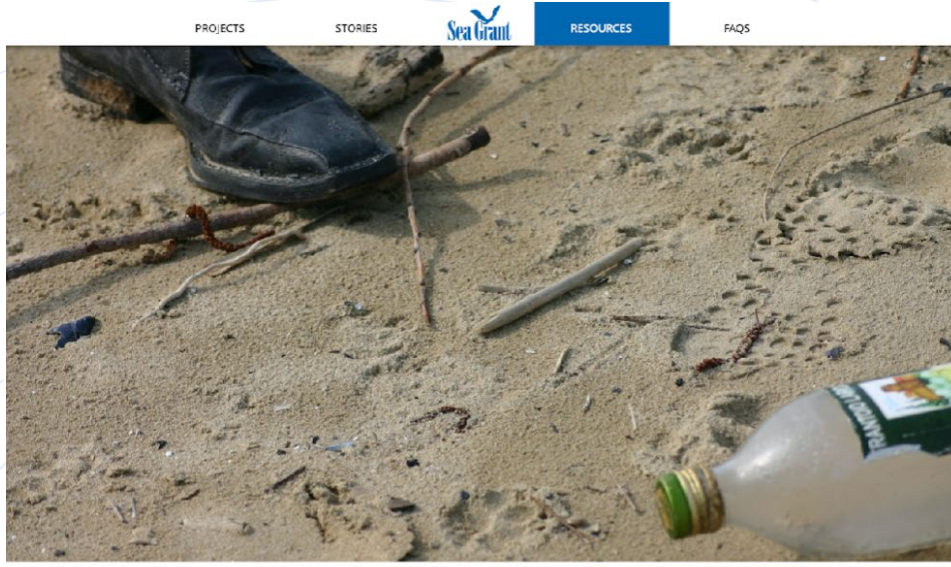


# Categories - Poll/Chat: Which Category Is Missing from the List

1. Animal Monitoring
2. BioBlitzes/iNaturalist
3. Climate/Weather
4. Collaborative Fisheries
5. Computer-Based
6. Microplastics/Debris
7. Plant/Seaweed Monitoring
8. Shoreline Monitoring
9. Restoration/Clean-ups
10. Water Quality – Biology
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# Resources Page



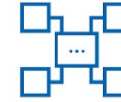
PROJECTS

STORIES



RESOURCES

FAQS



## Data Management Tips

One of the most challenging aspects of citizen and community science efforts is collecting, organizing and managing the data collected by participants. Many companies provide software platforms to facilitate this process, each having their own benefits and drawbacks. When creating a community science project, the design process needs to consider the data management plan of the effort.

[VIEW](#)

## USEFUL LINKS

[NOAA Database Link](#)  
[SciStarter Link](#)  
[Citizen Science Association](#)  
[Conferences to Attend](#)  
[Link to Toolkit on USD Forestry Service?](#)

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[Link to Toolkit on USD Forestry Service?](#)

## Resources



### Citizen Science Legislation

The federal government has been working to validate the citizen science movement as reflected in the Crowdsourcing and Citizen Science Act of 2017, 15 USC 3724. [Technology Link](#). Chapter 63. Many states have similar legislation.

[VIEW](#)

[CHAPTER 63](#)



### Sea Grant Community Science Vision Plan

Over the course of two years, members from multiple Sea Grant programs across the country worked together to craft a network visioning document. Published in 2018, this document sets to establish guidance and direction over the next 10 years as Sea Grant develops its crowdsourcing and community science capacity.

[VIEW](#)

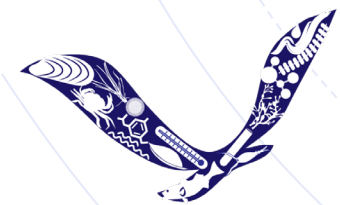


COMMUNITY SCIENCE

[CLICK LINKS OR OTHER LINKS](#)



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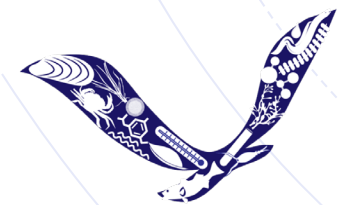
# Stories that Highlight the Collaborative Sea Grant Network



Citizen science in shifting sands



<https://storymaps.arcgis.com/stories/20b380ecb1bc40c9b5663c5d9f27839b>



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# Other Ways to Build SG CS Profile – Enter in Chat

- What else should we put on the website?
- What are some stories that we could tell highlighting projects across the network?
  - Working in Collaboration
  - Working in Conjunction
  - Complementary work
- What are other tools we could use?

**Ideas can also be posted on the SG CS list-serv**

