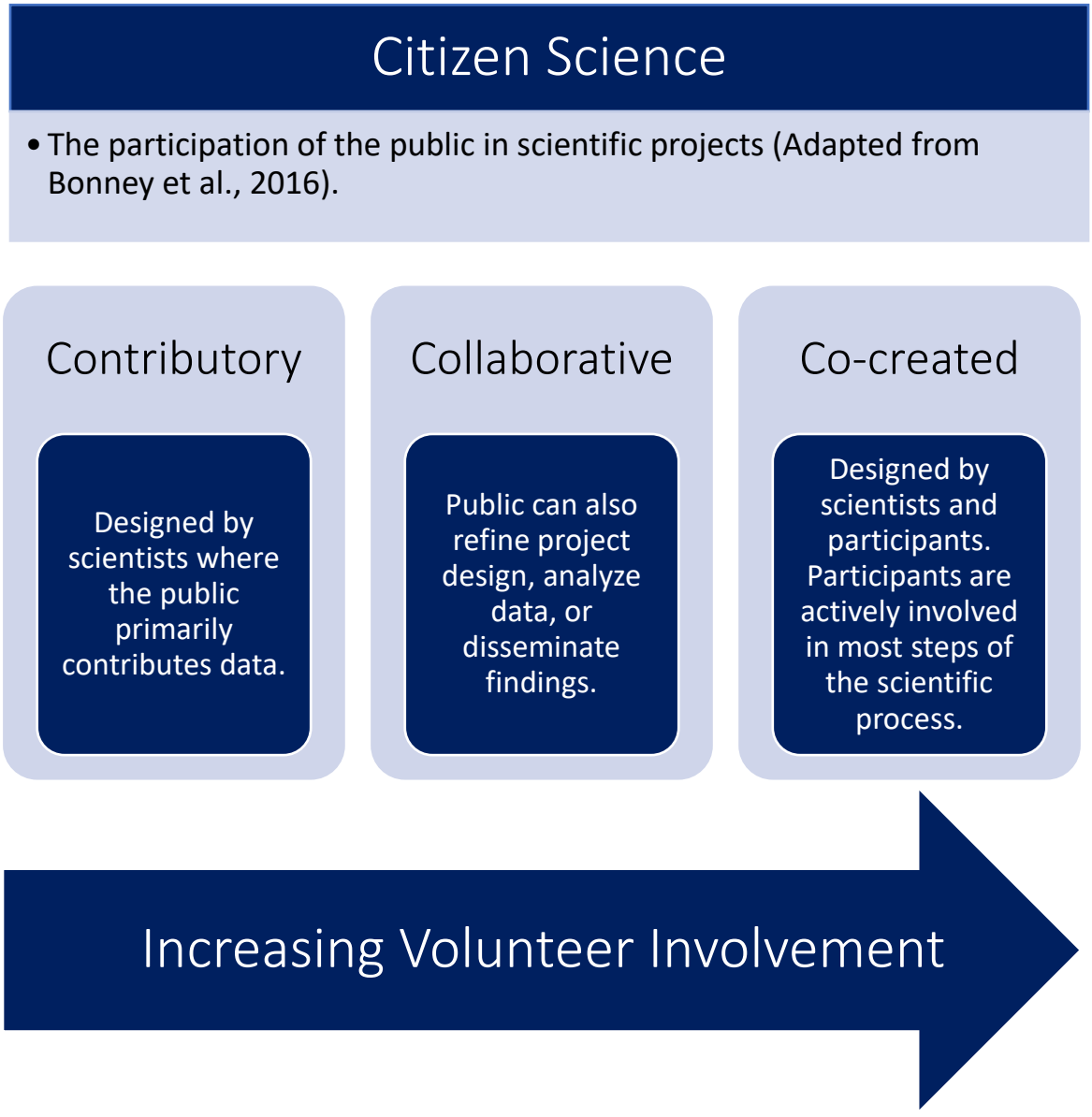
Citizen Science Project Types and Example Projects
10/18/2021

Being the growing and ever-changing field that it is, there are countless ways to define and characterize citizen science initiatives. To update, clarify, and inspire creative ideas, we have developed this brief document that summarizes some proposed categories and examples of citizen science projects. Below, we have listed three types of projects with varying levels of volunteer participation and provided examples organized by citizen science method.



Examples of Fishery and Marine Citizen Science Projects

- To help inspire new ideas for our citizen science research priorities, we compiled a list with examples of fisheries and marine citizen science projects grouped by different project methodologies and provided links to additional resources. (Categories adapted from Strasser et al., 2019).

1 SENSING

These projects draw on people's familiarity with their local environment and the fact that large numbers of participants can greatly expand the spatial reach of observational projects.

The Ocean Clean Up's Ocean Survey
Ocean plastic monitoring via app that allows volunteers to report observed ocean plastic to understand how and where floating plastic accumulates at sea and benefit the ocean cleanup's strategy.
https://theoceancleanup.com/research/citizen-science/

Florida Horseshoe Crab Watch-Linked with Limulus
Initiative which trained volunteers to assist biologists in surveying, tagging and resighting Florida's nesting horseshoe crab populations using a standardized scientific protocol.
https://myfwc.com/research/saltwater/crustaceans/horseshoe-crabs/citizen-watch/

Florida Fishermen Collect Data to Help Red Tide Response
Fishermen work with NOAA to collect oceanographic data off Florida's Gulf Coast to help respond to the red tide event.
https://www.fisheries.noaa.gov/feature-story/florida-fishermen-collect-data-help-red-tide-response?utm_medium=email&utm_source=govdelivery

2 SELF-REPORTING

Voluntarily sharing personal information to pool into a larger database for analysis, public learning, and decision-making.

Western Australian Fisheries' Send Us Your Skeletons (SUYS)
SUYS asks recreational fishers to voluntarily donate fish skeletons of important species from their catch to allow biological data extraction by scientists to produce age structures and conduct stock assessment analyses.

http://www.fish.wa.gov.au/Fishing-and-Aquaculture/Recreational-Fishing/Send-Us-Your-Skeletons/Pages/default.aspx

IGFA Great Marlin Race
A billfish satellite-tagging program joins recreational anglers with satellite tag technology to investigate the biology and ecology of billfish by examining how they utilize their open ocean habitat. Angling teams are invited to sponsor satellite tags for marlin that are caught and released during billfish tournaments, and the team whose individual marlin swims the farthest distance is declared the winner.
https://fisheries.org/2016/04/citizen-science-at-its-best/

3 MAKING

Volunteers donating their time to develop projects, create, and produce knowledge. This can occur virtually via discussion boards or in person at participatory workshops.

Dolphin Wahoo Participatory Workshops
Hosting a series of participatory workshops to increase communication between scientists, managers, and fishermen to better understand and manage the Dolphin Wahoo fishery in the Atlantic.
https://safmc.net/cit-sci/dolphin-wahoo-participatory-workshops/

FAU and Mississippi State's initiative to assess shark depredation
Scientists work with recreational fishermen and collaboratively evaluate the issue of shark depredation. Researchers will use onboard surveys, videos, genetic analyses, and social media to obtain data that will produce the capacity to assess the prevalence of shark depredation in recreational fisheries.
https://www.fau.edu/newsdesk/articles/shark-depredation-grant.php

Volunteer Water Quality Monitoring Project
Monitor Water Quality in Horry & Georgetown Counties by conducting bimonthly monitoring as trained citizen scientists.
https://www.coastal.edu/wwa/vm/

4 ANALYZING

Also known as crowdsourcing, using data analysis software like Zooniverse to enable volunteers to classify images and analyze data.

Ocean Network Canada's Digital Fishers

A crowd-sourced ocean science observation game- Volunteers watch a short 60-second segment of underwater video and are guided to make observations on sea life, water clarity, and seafloor composition.
https://www.oceannetworks.ca/learning/get-involved/citizen-science/digital-fishers

Land Loss Lookout
Monitor land loss on the Mississippi River Delta by categorize wetland impact patterns using color infrared aerial photographs.
http://bit.ly/landlosscairns

Spyfish Aotearoa
Discover, count, and identify unique fish species from baited underwater cameras in marine reserves all over Aotearoa New Zealand to monitor the abundance and diversity of marine life.
https://www.zooniverse.org/projects/victorav/spyfish-aotearoa

To find more examples of citizen science projects, check out the resources below.

- Federal Crowdsourcing & Citizen Science Catalog – this searchable database provides a listing of citizen science and crowdsourcing projects across government agencies in the US
- SciStarter Project Finder – this searchable database lists a variety of citizen science projects across the globe and helps connect volunteers to projects
- Zooniverse – this online crowdsourcing platform hosts hundreds of online citizen science projects where volunteers help classify photos, videos, old documents, etc.
- CitSci.org Project Finder – online platform that helps create and host a variety of citizen science projects and includes a searchable database of their projects

References

Bonney R. (2016). Citizen science— Innovation & Inspiration for Science. *First International ECSA Conference.*

Strasser J., Baudry J., Mahr D., Sanchez G., and Tancoigne E. (2019). “Citizen Science”? Rethinking Science and Public Participation. *Science & Technology Studies 32(2).*