

Citizen Science and Federal Agencies



Citizen science: voluntary public participation in the scientific process, addressing real-world problems in ways that may include

- formulating research questions
- conducting scientific experiments
- collecting and analyzing data
- interpreting results
- making new discoveries
- developing technologies and applications
- solving complex problems

Crowdsourcing: organizations submit an open call for voluntary assistance from a large group of individuals for online, distributed problem solving

From: <http://www.citizenscience.gov/about/>





Tackling Societal and Scientific Problems with Crowdsourcing and Citizen Science


By enabling and scaling the use of open innovation methods such as citizen science and crowdsourcing, the Federal Government is increasingly harnessing the ingenuity of the public to accelerate science and technology innovation, and improve the efficiency and effectiveness of government. Crowdsourcing and citizen science are tools that educate, engage, and empower the public to apply their curiosity and contribute their talents to a wide range of real-world problems.





<http://bit.ly/2q20GY4>

- 

Crowdsourcing and Citizen Science
Agencies submit an open call for voluntary assistance from a large group of individuals to complete defined tasks. They can also encourage participants to assist with specific science-related tasks, which can include collecting and analyzing data, and interpreting and reporting results.
- 

Idea Generation (Ideation)
Agencies ask participants to submit ideas to address a specific issue or problem, and may allow them to comment on ideas submitted by other participants, and vote to express their support for an idea.
- 

Open Data Collaboration
Agencies mobilize participants to share, explore, and analyze publicly-available data sets, using the data to conduct research, design data visualizations, or create applications and websites that help people access and use the data.
- 

Open Dialogue
Agencies collect and respond to information, observations, and perspectives from a range of citizens, experts and stakeholders.
- 

Prize Competition or Challenge
Agencies identify a problem to solve or a specific goal to achieve, and ask participants to submit potential solutions. The agency evaluates these proposals, and provides a reward to selected winners.

<http://bit.ly/2ot4EvF>



Helping federal agencies accelerate innovation through public participation.

Citizenscience.gov is an official government website designed to accelerate the use of crowdsourcing and citizen science across the U.S. government. The site provides a portal to three key assets for federal practitioners: a searchable **catalog** of federally supported citizen science projects, a **toolkit** to assist with designing and maintaining projects, and a gateway to a federal **community** of practice to share best practices.

Explore Projects



Plan Your Projects



Join Our Community



See What's Happening in Federal Citizen Science



Student Solvers: Learn how students are helping the U.S. collect mosquito samples.

Follow Us on Twitter

A screenshot of a Twitter feed from the account @FedCitSci. The first tweet is a retweet of a tweet from @Research_Voice about 'The Big Bang Theory' influencing audience perceptions of science, with a link to digitalcollections.anu.edu.au. The second tweet is about inviting ants to a picnic, with the hashtag #citizenscience and a link to #citsci twitter.com/nature_brains/... Both tweets are dated 20 May.

Embed

View on Twitter



Federal Crowdsourcing and Citizen Science Catalog

FIND PROJECTS: 1

Search for...

FILTER BY: 1

Project Topic

Agency Sponsor

Agency Partner

Participant Age

Intended Outcomes

PROJECTS

354

AGENCIES

26

IDAHO Master Water Stewards

by

(Per)Mission

by

2016 National Parks BioBlitz - Acadia Lepidoptera BioBlitz

by

2016 National Parks BioBlitz - American Samoa

by

2016 National Parks BioBlitz - Anietam Grasslands

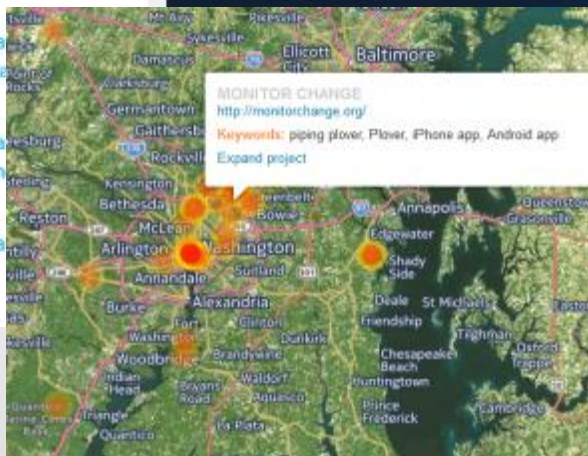
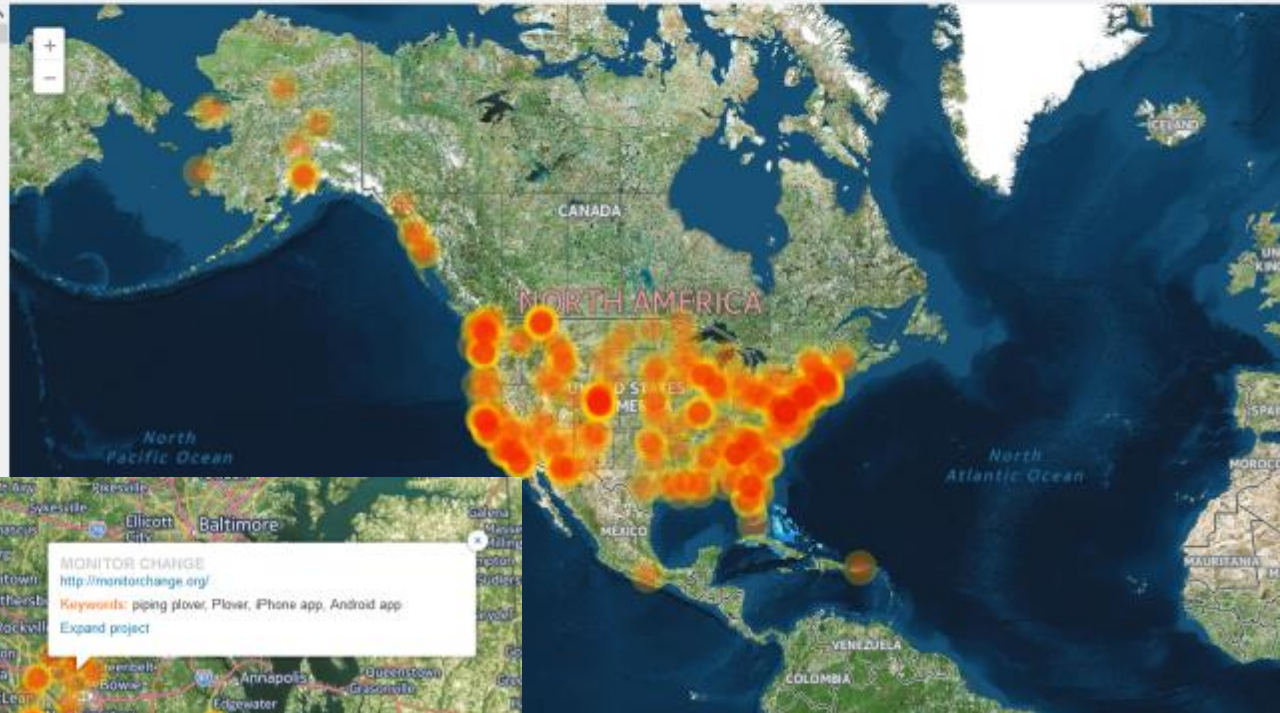
by

2016 National Parks BioBlitz - Assateague Island

by

2016 National Parks BioBlitz - Aztec Ruins

by



An elegantly visual citizen science concept

Monitor environmental and social change using iPhones, photo-stitching, and time lapse

A simple, elegant concept developed by [Sam Droege](#), USGS Patuxent Wildlife Research Center.



How to get involved

One way

Subscribe to get email updates

Two way

Sign up on the Monitor Change website to contribute ideas and join the discussion

Possible places/groups where this change monitoring approach could be implemented

- Watershed societies
- Troutkeepers
- Stream crossings
- Trail clubs
- Stream monitoring groups



NASA Solve is an invitation to members of the public to contribute their time and expertise to advancing research, solving problems, and potentially winning prizes as a result of their work. Specific projects listed on this site that engage people in problem solving include crowdsourced challenges and prize competitions, citizen science projects, and competitions aimed at advancing student education, and many more activities.

<https://www.nasa.gov/solve>



I SEE CHANGE

COMMUNITY CLIMATE & WEATHER JOURNAL

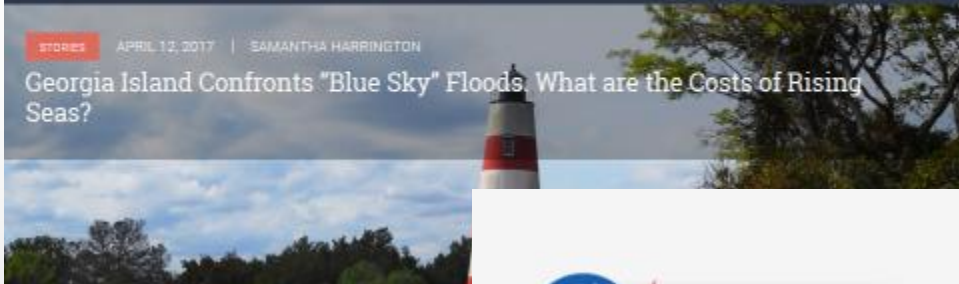
Investigate how weather and climate change are affecting your environment.

Get started



STORIES APRIL 12, 2017 | SAMANTHA HARRINGTON

Georgia Island Confronts "Blue Sky" Floods. What are the Costs of Rising Seas?



SIGHTINGS APRIL 25, 2017 | UMA DOTE

Yesterday sun was out some time and today its chill and windy ... I want summer to be like this please
Gatonya, KW



<https://www.iseechange.org/>



iSeeChange is mobile!

You can now use this site on your phone or your desktop!

We also made an app with NASA! Download it today from the iTunes app store to help investigate climate change on the ground level while satellites monitor from space!



Download the App



Android App coming soon 2017



Biodiversity

Home

What is Biodiversity? ▾

Biodiversity Discovery ▾

Explore Biodiversity

In the News

Young Stewards ▾

NPS.gov / Explore This Subject / Biodiversity Discovery / NPS/National Geographic Society BioBlitzes / National Parks BioBlitz

National Parks BioBlitz

Follow along in real time as the National Parks BioBlitz continues across the country throughout 2016



See the biodiversity of national parks across the country as people observe species with iNaturalist.



Check out exciting social media feeds and make sure you share your stories of discovery and inspiration with #BioBlitz2016.



How It Works



Nature At Your Fingertips



Keep Track

Record your encounters with other organisms and maintain life lists, all in the cloud.



Create Useful Data

Help scientists and resource managers understand when and where organisms occur.



Crowdsource Identifications

Connect with experts who can identify the organisms you observe.



Become a Citizen Scientist

Find a project with a mission that interests you, or start your own.



Learn About Nature

Build your knowledge by talking with other naturalists and helping others.



Run a Bioblitz

Hold an event where people try to find as many species as possible.



CALIFORNIA ACADEMY OF SCIENCES



Marine Debris Program

OFFICE OF RESPONSE AND RESTORATION

ABOUT US

DISCOVER THE ISSUE

CURRENT EFFORTS

IN YOUR REGION

RESOURCES

MULTIMEDIA

Home • Current Efforts • Prevention • Marine Debris Tracker

Marine Debris Tracker

The *Marine Debris Tracker* mobile application is a joint initiative between the NOAA Marine Debris Program and the Southeast Atlantic Marine Debris Initiative (SEA-MDI), run out of the University of Georgia College of Engineering. The tracker app allows you to help make a difference by checking in when you find trash on our coastlines and waterways.

This tool is a great way to get involved in local data collection – imagine being able to use your data to characterize the marine debris problem at your local beach. Anyone picking up marine litter can easily track and log items from a list of common debris items found on the shoreline or in the water. Litter tracking is not just for the coasts – you can track debris picked up anywhere in the country, even a stream in Nebraska.

The app records the debris location through GPS, and you can view the data on your phone. Submit the data to SEA-MDI's *Marine Debris Tracker website* for viewing and download later (requires registration, which is available on the app). Download the app and start tracking today!



Resources - Links
[Marine Debris Tracker at SEA-MDI](#)

Resources - Downloads
[Marine Debris Tracker App Flyer](#)

On Our Radar



[Home](#) [View and Get Data](#) [Top Trackers](#) [How do I Start Tracking?](#) [Tracker Photos](#) [About](#) [Connections](#)

Thousands of people have logged and removed over **THREE QUARTERS OF A MILLION** pieces of litter and debris all over the world!

Recent Debris Activity

With Marine Debris Tracker, it just takes a few seconds to easily report where you find marine debris or litter anywhere in the world... and then prevent it from impacting our oceans.

anonymous in Morrisville, NC found 3 items of 2 types at 2 locations @ 6:47pm on 04/25



anonymous in Morrisville, NC found 1 items of 1 types at 1 locations @ 3:51pm on 04/25



anonymous in Morrisville, NC found 1 items of 1 types at 1 locations @ 3:25pm on 04/25



anonymous in Morrisville, NC found 1 items of 1 types at 1 locations @ 3:13pm on 04/25



Leave only waves and footprints behind...



Like Share 1.2K people like this. Be the first of your...

Tweets by @DebrisTracker



Happy #EarthDay from all of us at @MarineDebrisTracker - this video of our 5 yrs collective action is overwhelming! [youtu.be/nf15_1AY](#)

YouTube @YouTube



<https://marinedebris.noaa.gov/partnerships/marine-debris-tracker>

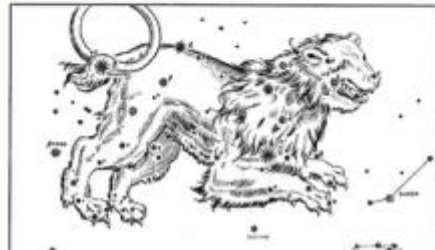
<http://www.marinedebris.engr.uga.edu/>



Join us for the April, 2017 campaign!

So far in 2017 citizen scientists from around the world have [contributed 6,857 data points](#). We are just getting started - help us make it a record setting year!

[Campaign dates & Constellations for 2017](#) have been announced!



Globe at Night and SciStarter
 SciStarter has been working closely with Globe at Night to integrate some of their new NSF-funded SciStarter 2.0 tools onto their site. These tools allow participants to automatically track their contributions through a centralized SciStarter dashboard. Check out our [project page](#) to learn more.



Globe at Night webapp
 Whether you use a smartphone, tablet or computer, you can [submit your data](#) in real time with our webapp - now [available in 28 languages!](#) Help us make 2017 a record year!

1 When did you make your observations?
 Observation Date: 2017/04/25
 Observation Time: 25:52
[Switch to Nighttime version](#)

2 Where did you make your observations?
 Map of location with Google Maps interface.

Location correct: Read GPS
 Latitude: 38.9530027
 Longitude: -76.54052055555556
 Elevation: 82.87 meters
 Country: United States - Maryland

Location comments:
 (E.g., Rural, suburban, or urban location; show street number if streetlights, porchlights or other light sources (including machines, etc.) in vicinity; show structure in vicinity)

3 How dark was the sky that night?
 Constellation: Leo
 Star chart showing Leo constellation with stars like Regulus, Denebola, and Procyon.

4 What were sky conditions like that night?
 Clear, 1% of the sky, 1% of the sky, More than 1% of the sky
 Sky condition comments: (E.g., Moon - direction? Clouds - type, direction? Sky glow; light dome - direction?)

5 Did you use a Sky Quality Meter (SQM)?
 SQM reading:
 Serial Number:

6 Ready to send us your data?
 SUBMIT DATA



Globe at Night is a program of the **National Optical Astronomy Observatory**, the national center for ground-based nighttime astronomy in the United States, operated by the **Association of Universities for Research in Astronomy (AURA)**, under cooperative agreement with the **National Science Foundation**.