

#### Citizen Science & Climate Change Webpage Promotion

Hongyu Chen Juliana Barrett, PhD

### What & Why?

What is climate change?

Climate change is the long-term change in the temperature and precipitation patterns of the earth, often accompanied by an increase in extreme weather and rising sea levels. It seems far away, but in fact, the daily rainstorms, droughts and biological migrations are telling us that the climate is quietly changing the environment around us.

#### What is citizen science?

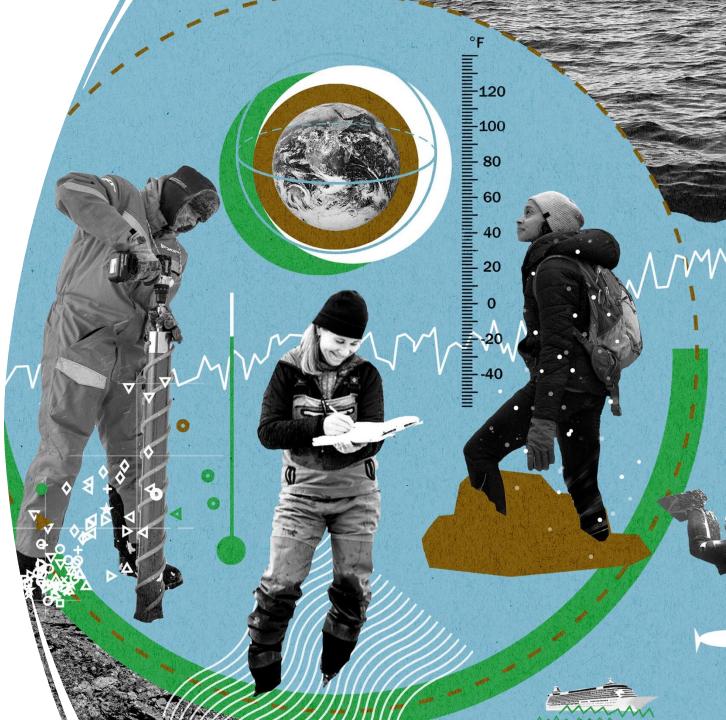
Citizen science allows everyone to participate in scientific research: taking pictures with mobile phones, filling out forms, and submitting observation data, without professional background, can provide first-hand information for scientific research. It directly converts "the phenomena I see at my doorstep" into valuable data, making scientific research closer to life.

#### Why combine them?

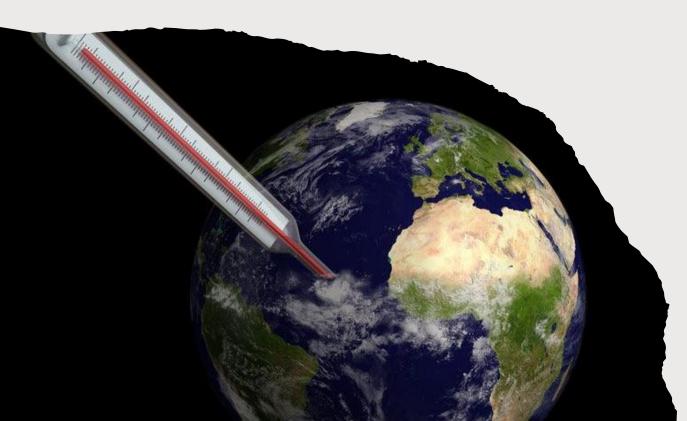
Combining citizen science with climate change means connecting the daily observations of thousands of ordinary people into massive data, covering places and time periods that are difficult for professional teams to reach. In this way, we can make all our resident be part of the solution to climate change.

# Goal

- Build a website that centralizes Connecticut citizen science climate projects
- Attract and retain volunteers through online and offline promotion



## About us



#### Our team:

Coming from an interdisciplinary background in environmental science, we are committed to using digital tools to gather citizen power.

Our mission:

Build a one-stop website to centrally present various climate change citizen science projects in Connecticut and simplify the participation process.

Our vision:

Make it easy for every community member to get started, continuously contribute data, and form "visible and tangible" climate response actions

### Scope of work

• Research integration: sort out all climate change citizen science projects in Connecticut.

 Interface prototype: design homepage, project list page and detail page prototype.

• writing + visual: write an introduction and climate impact description for each project, with field photos and trend charts.

• Gamification: integrate community chatting group and create interactive games.

• Promotion execution: social platform tweets and cooperation emails are launched simultaneously.

# Webpage design

- Large picture carousel (bird observation, coastal survey, forest measurement, etc.)
- A brief introduction to citizen science and climate change
- Core: "Use your data to protect our home"





# Quick Start



- Register/Login ( $\checkmark$ )
- Select a project ( $\checkmark$ )
- Watch a 2-minute demo video ( $\checkmark$ )
- Download the observation form or app ( $\checkmark$ )
- Submit your first data ( $\checkmark$ )

Each time the user completes an item, the circle in front of it turns into a check mark and automatically unlocks the next step. After completing all, a pop-up message "Congratulations! You have become our new volunteer" will appear, and a small badge will be given

## Project List and How to Participate



#### eBird∶

eBird is a global bird watching data collection project initiated by the Cornell Center for Ornithology

Website: https://ebird.org/

iNaturalist:

iNaturalist is jointly operated by the California Academy of Sciences and the National Geographic Society..

Website: https://www.inaturalist.org

Community Collaborative Rain, Hail & Snow Network:

CoCoRaHS is a volunteer-driven precipitation observation network dedicated to collecting precipitation data such as rain, snow and hail in communities around the world

Website: https://www.cocorahs.org/

National Phenology Network:

The National Phenology Network of the United States aims to provide large-scale volunteer observation data for studying the relationship such as germination, flowering, and reproduction of animals and plants in different seasons.

Website: https://www.usanpn.org

Alliance for the Mystic River Watershed:

The Alliance for the Mystic River Watershed is a collaborative organization or alliance dedicated to protecting and restoring the ecology of inland rivers in the United States,

Website: https://www.alliancemrw.org/

Pomperaug River Watershed Coalition:

The Pomperaug River Watershed Coalition is committed to protecting the ecological health of the Pomperaug River in Connecticut and promoting sustainable management of river and groundwater quality and quantity through scientific research and community participation.

Website: https://www.pomperaug.org/monitoring

Connecticut Audubon Society - Osprey Nation:

Osprey Nation is a citizen science project initiated by the Connecticut Audubon Society to monitor and protect the distribution and breeding status of ospreys in Connecticut.



Ghosts of the Forest:

"Ghosts of the Forest" is dedicated to revealing the silent guardians of carbon sinks and biodiversity in ancient forests, such as centuries-old trees, rare fungi and mosses. The project recruit volunteers to go to primary or secondary forests, take photos and record

Website: https://www.ghostsoftheforest.org

MyCoast Connecticut:

MyCoast Connecticut is a pioneering citizen science project launched by Connecticut Sea Grant, Connecticut National Estuarine Research Reserve and Connecticut Institute for Resilience and Climate Adaptation in New London, Groton and Stonington.

Website: https://seagrant.uconn.edu/focus-areas/resilient-communities/mycoast-connecticut/

Clean Up Sound & Harbors:

CUSH, a nonprofit organization based in Stonington, has 36 unpaid employees whose mission is to clean up and protect Fishers Island Sound and its bays, estuaries and harbors. It is committed to restoring coastal ecological health and reducing pollution by mobilizing community volunteers to carry out coastal cleanups, water quality testing, ecological landscape transformation and friendly sailing promotion.

Website: https://cushinc.org/



# Fun Game & Quiz



Which of the following tools do volunteers most often use to monitor local precipitation in community science projects?

A. Thermometer

B. Rain gauge

C. Telescope

D. Photometer



# Answer

#### B. Rain gauge



When volunteers find suspected invasive plants in the park, what is the most direct way to record them?

- A. Take photos and mark GPS locations
- B. Measure plant height
- C. Collect air samples
- D. Record the temperature of the day



# Answer

#### Answer: A

Taking photos and marking the locations will help experts identify species and develop cleaning plans, which is also the standard process for most plant monitoring projects.

# Volunteer+Quiz=More Points, More Impact

Volunteer Activity:

For each volunteer activity you participate in, upload your participation photo or certificate and our staff will review it, and you will get 50 points.

#### Quiz:

Take part in the quiz on the page and get an extra +1 point for each correct answer

#### Leaderboard:

Users will be automatically listed after accumulating points. The current Top 10 can be viewed on the homepage sidebar and the "Community" page.

Rewards:

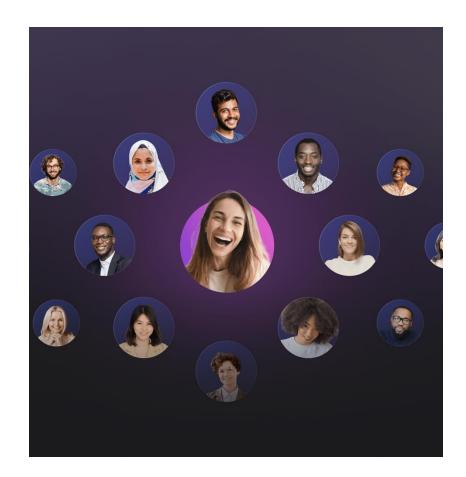
Monthly "Best Volunteer" badge

Quarterly online sharing session invitation



# Community Purpose

- Users can ask questions about observation methods, data collation, etc, and other volunteers and experts will answer them.
- Sharing results: Publish your own observation pictures, data visualization charts and experience to inspire more people to participate.
- Collaborative verification: Community members can review each other's data or photos to improve data quality and credibility.
- Event notification: Timely announce online lectures, Q&A challenges, offline cleanup operations and other event arrangements.



# Community

- User dynamics: latest data submission/observation posts
- Likes/comments: promote discussion and social interaction
- Share button: one-click sharing to social media



# Expert Webinars & Guest Talks

#### Monthly Webinar Series:

Environmental scientists, climate model experts or government officials are invited to give 30-minute online lectures every month

#### Live Q&A Sessions:

15 minutes of live Q&A after the lecture, users can submit questions in advance or ask questions on the spot

Encourage interaction between new and experienced volunteers

#### Promotion:

Preview on the homepage, community announcements and social platforms simultaneously. Users can click "Register" to receive a reminder email



### Contact Us

 Download links: FAQ, observation manual, training video MAIL

MAIL

AIL

MATL

- Partner organization logo: CT Sea Grant, Audubon, CoCoRaHS…
- Contact us: Email/social account/QR code

