



Darlene Cavalier  
@SciStarter

We connect  
regular people  
to real science  
they can do.



Millions of people  
enjoy  
science & nature.

Thousands of  
scientists need  
volunteers.

*But they can't  
find each other.*



We  
connect  
them





CITIZEN SCIENTISTS ARE

BUILDING TOOLS FOR  
THE FUTURE



FIND A PROJECT

Find a location

enter a location



Select a topic

select a topic...



find a project



**CITIZEN SCIENTISTS ARE  
USING SCIENCE TO ADDRESS  
LOCAL AND GLOBAL PROBLEMS**



**FIND A PROJECT**

Find a location

enter a location



Select a topic

select a topic...



**find a project**



CITIZEN SCIENTISTS ARE

DISCOVERING  
NEW WORLDS



FIND A PROJECT

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enter a location



Select a topic

select a topic...



find a project



CITIZEN SCIENTISTS ARE

ADVANCING  
MEDICAL RESEARCH



FIND A PROJECT

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Select a topic

select a topic...



find a project



WE'VE ALL GOT OUR  
**EyesOnALZ**



Human Computa...



 bookmark

Join Project

✓ I have worked on this project

## EyesOnALZ

Presented By: Human Computation Institute

Goal: Speed up Alzheimer's research

Task: Build 3D blood flow models and discover stalled vessels.

Where: Online only

Description: [Help scientists analyze brain blood flow movies - are blood vessels flowing or stalled?](#)

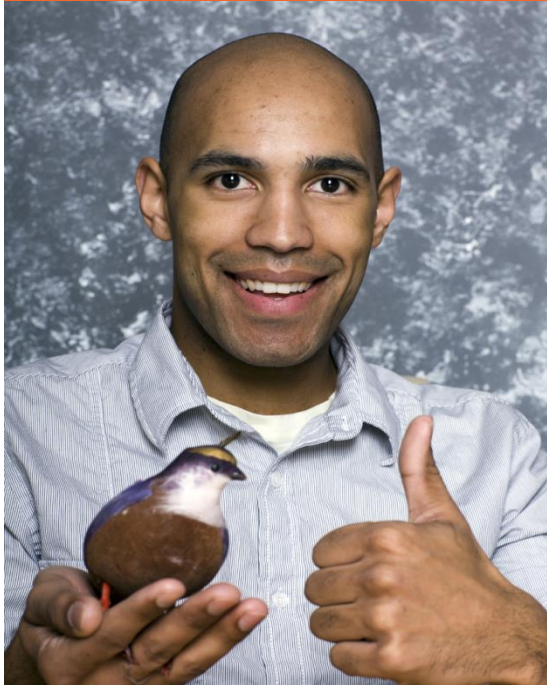
One symptom of Alzheimer's that has been known since the discovery of the disease is reduced blood flow to the brain, but until now, nobody knew why. That is why this aspect of the disease, which likely contributes to cognitive problems and accelerates injury to brain cells, has remained untreated.

New specialized imaging techniques have allowed Cornell University researchers to discover a potential cause of the reduced blood flow. This suggests new treatment approaches that

# Someone you know is a Citizen Scientist

*eBird*

1.5 million reports



*1.5 million  
water testers*



*SETI@home 5  
million volunteers*



# Citizen Science is Serious Science.

## Galaxy Zoo

Co authored  
*dozens of  
peer-reviewed  
papers*

## Audubon

Showed that  
*birds migrate  
closer to  
poles* due to  
global warming

## Sound Citizen

Discovered  
*cocaine &  
hormones* in  
Puget Sound  
drinking water

Because of  
Citizen  
Scientists,  
we now know:

- Birds are breeding earlier
- 50+ types of bacteria live in your belly button
- Jupiter-sized planet discovered
- Invasive mosquito species has arrived in Germany

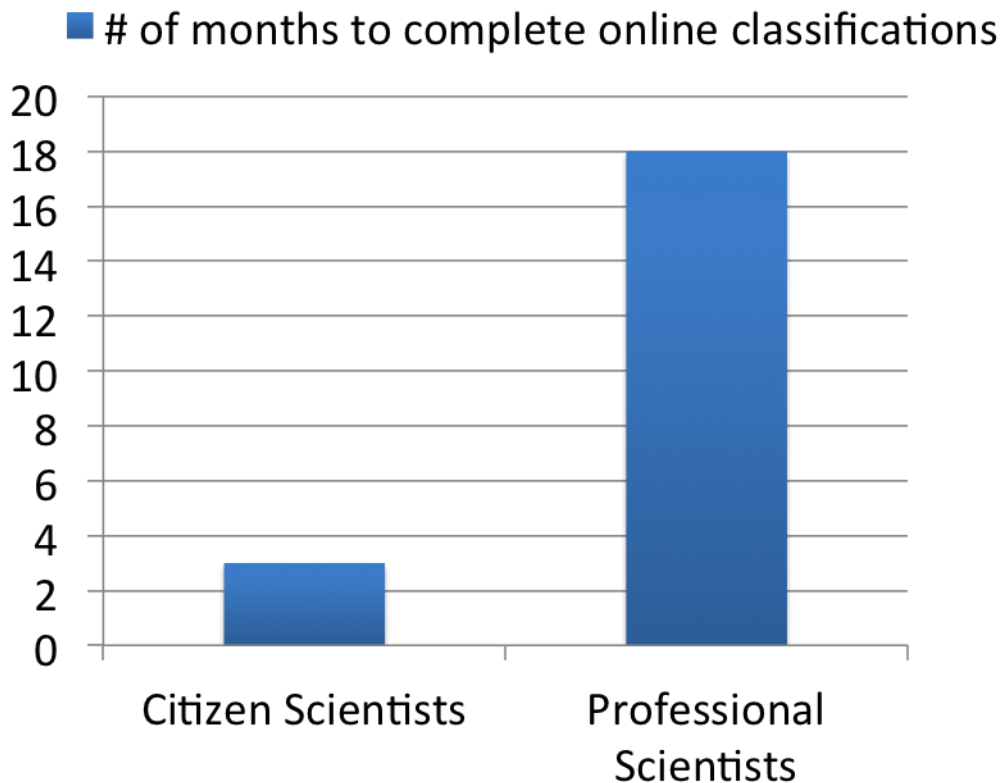
(Cooper et al. 2014)

Because of  
Citizen  
Scientists:

In a study of **338** citizen science projects:

**1.3–2.3 million** citizen scientists had an economic value of **\$2.5 billion** per year.

Because of  
Citizen  
Scientists:  
Cell Slider:  
Classify Online  
Images of Cancer



Because of  
Citizen  
Scientists:

Data is equal to or more  
accurate than professional  
scientists' data.

*Source: Andrea Wiggins*

Because of  
Citizen  
Scientists:

“... increased understanding  
of scientific methodology,  
validity, and reasoning...”

*Source: Brossard, et, al,*



# Because of Citizen Scientists:

- Accurate data
- Accelerate research
- Economic impact
- Increase understanding of the scientific method

# Snippet of webcode tracks contributions.

It feels good to contribute to science, right? Do more by becoming a SciStarter member and gain credit for your contributions. [Learn more!](#)

[Create a SciStarter Account](#)

You're a [SciStarter](#) participant! Your contributions to this project are tracked and will show up on your forthcoming SciStarter dashboard.

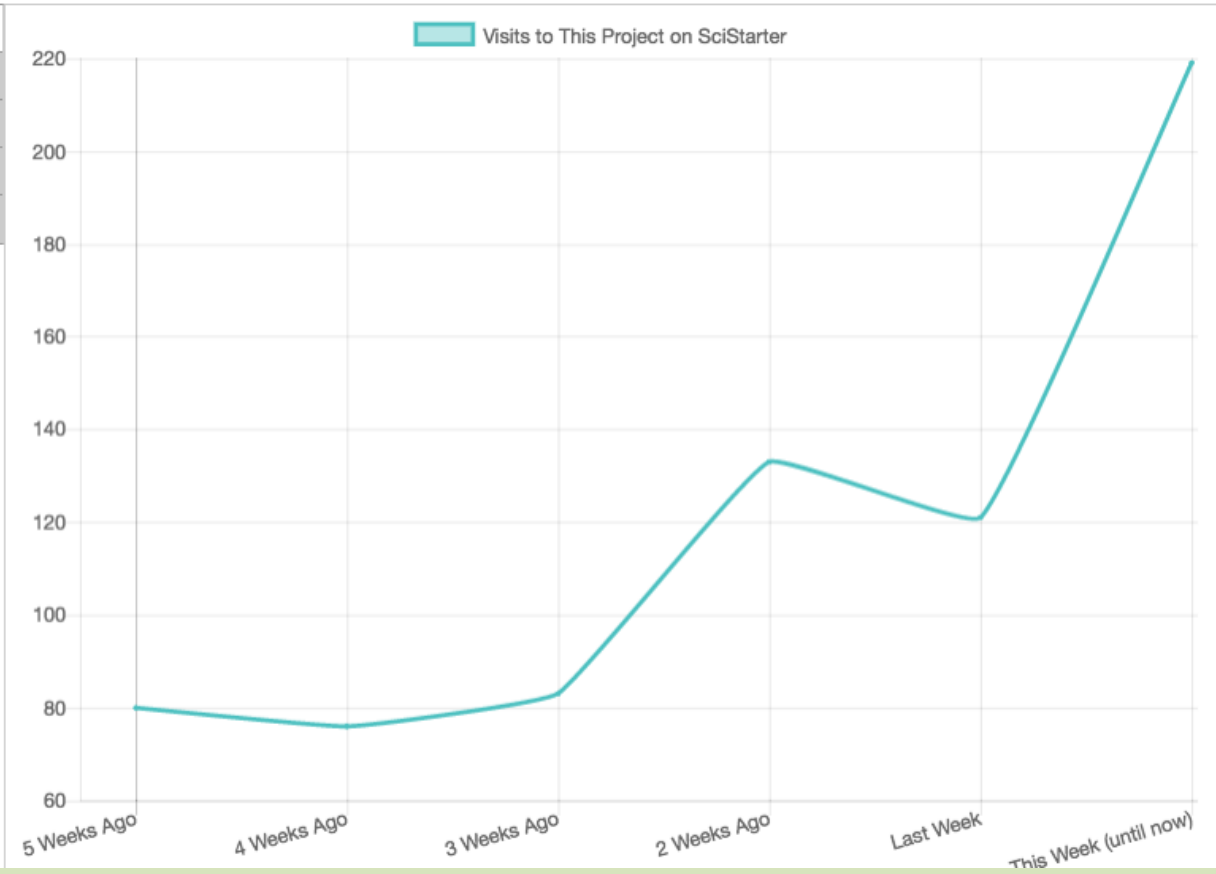


Track Contributions

# Stats

(EyesOnALZ)

Page Visits	19,484 total
Bookmarks	10 total
Joined Project	362 total
SciStarter Participants	430 total
Ratings	3 total

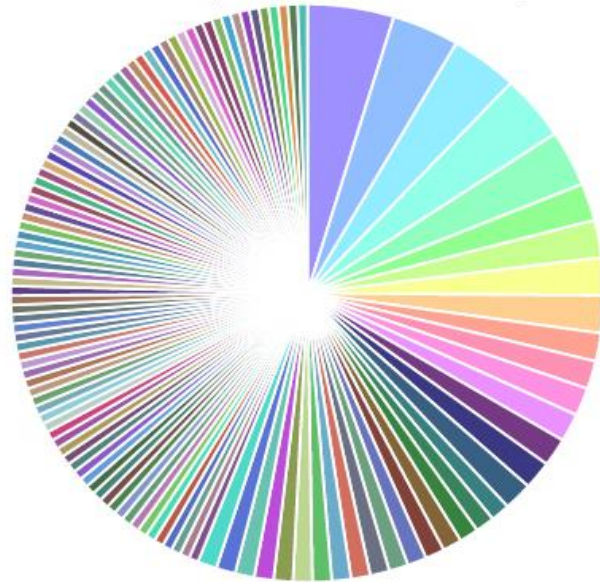


# Stats

(EyesOnALZ)

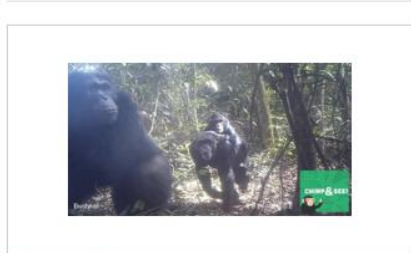
Page Visits	19,484 total
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SciStarter Participants	430 total
Ratings	3 total

Projects and Events Joined by People Who Joined This Project on SciStarter



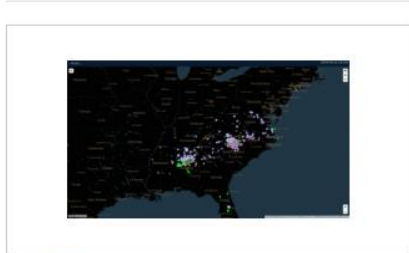
Clicked Join This Project on SciStarter

# Personalized Dashboard



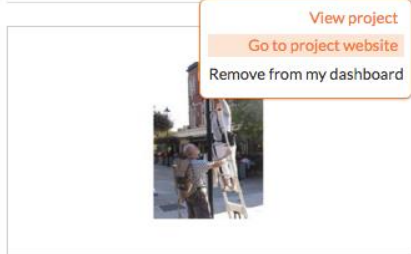
Chimp&See

actions



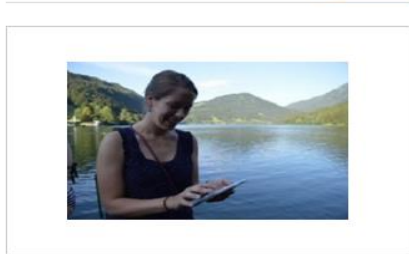
mPING

actions



Community air quality monitoring

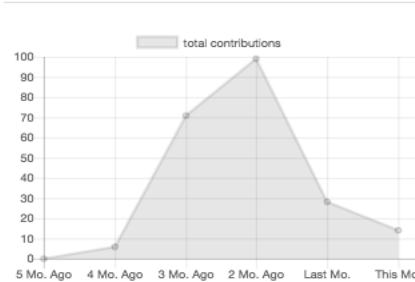
- View project
- Go to project website
- Remove from my dashboard



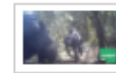
Lake Observer mobile app

actions

## Contributions



## Bookmarked Projects



Chimp&See



mPING



Wading for Water Sticks

[View all Bookmarked Projects](#)

## Bookmarked Events

You haven't bookmarked any events yet. Check out the Event Finder.

## Projects you might like



Long-term Monitoring Program and Experiential Training for Students (LiMPETS)



The River Otter Ecology Project



COASST

[View all Recommended Projects](#)



Broad Participation  
Track Contributions

# Find Volunteers

Looking for more volunteers for your project?

1. Fill out as many of the fields in [Additional Info](#) as you can. That helps potential volunteers find your project based on their location and interests.
2. Help us build a new tool that will help Affiliate and Premium members target and recruit volunteers! Complete our short survey so we know what features will best help you do that: [goo.gl/forms/oFXNshH6DVoiEnjF3](https://goo.gl/forms/oFXNshH6DVoiEnjF3).

## Show Only




Recruit and Retain  
Acquire Data

# Manage and Message Volunteers

Keep track of who has joined your project and message your volunteers.

Message to Selected  
Volunteers

Search your volunteers Q

<input type="checkbox"/>	Volunteer	Member Since	Last Active	Last Contacted	Contributions	Zipcode
<input type="checkbox"/>	 SciStarter Participant	11/28/2016	11/21/2016		4	90401
<input type="checkbox"/>	Anonymous	11/27/2016			0	93720
<input type="checkbox"/>	Anonymous	11/23/2016			0	54767
<input type="checkbox"/>	Anonymous	11/20/2016			0	05495
<input type="checkbox"/>	Anonymous	11/19/2016			0	80526
<input type="checkbox"/>	Anonymous	11/20/2016			0	64601
<input type="checkbox"/>	 djarb	06/13/2009		11/17/2016	0	98840



Recruit and Retain  
Acquire Data



Connect with Citizen Scientists +  
Project Leaders

# Project Leaders can add specific locations

If at a location or range

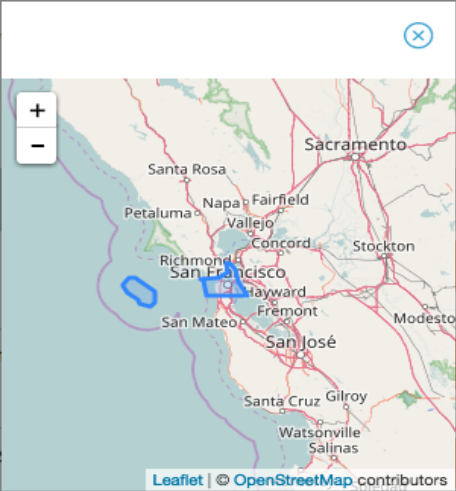
*SciStarter uses OpenStreetMaps as a tool for specifying geographic location(s). To use it, enter a location's name in the search field below and then select search for, and add additional locations. You can also pre*

Enter a location

San Francisco, CA

Lookup results

<input type="button" value="x"/>	San Francisco, San Francisco City and County, States of America
<input type="button" value="x"/>	San Francisco City and County, California, Uni America
<input type="button" value="x"/>	San Francisco, 9405, Boulevard Leduc, Quartie Quebec, J4Y 0A5, Canada



Recruit and Retain  
Acquire Data



# Citizen scientists can add location

## My Places

Add locations where you would like to find projects. This will help Scistarter find the projects you want, and alert reseachers conducting studies in these areas.

Chicago, Cook County, Illinois, United States of America



Los Angeles County, California, United States of America



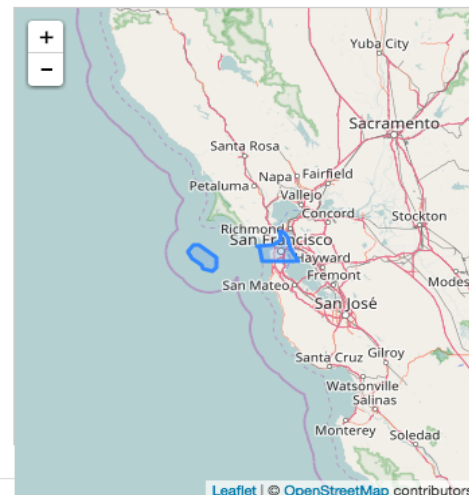
San Francisco City and County, California, United States of America



Tucson, Pima County, Arizona, United States of America



Save My Places









Local Relevance

# Find projects based on location

## Project Finder

Enter a word or phrase 

San Fran 

-  **San Francisco** CA, United States
-  **San Francisco County** CA, United States
-  **San Francisco Avenue** Long Beach, CA, United States
-  **San Francisquito Canyon Road** Santa Clarita, CA, United States
-  **San Francisco Avenue** Pomona, CA, United States

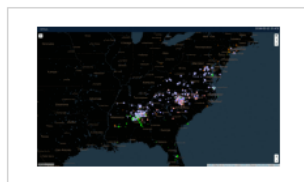
powered by 

- can be done online
- can be done indoors
- can be done outdoors
- can be done in a field


List

Map

## Featured Projects



credit: University of Oklahoma

 Add Bookmark

### mPING

★★★★★ (3)

Goal: Collect global observations of weather conditions at the ground

Task: Use app on iOS or Android to submit weather conditions

Where: Anywhere



### Community air quality monitoring



## Local Relevance

Participants Say

Educators Say



Rate this project



 jred8987 12/15/2016

Great location for information



 carolyn.santangelo 12/15/2016

Easy to use and something that would be "on the spot"  
teaching

## Project Finder



# We can now ask and answer new research questions

- What drives participation in citizen science?
- What motivates people to stay or change projects?
- Do people who participate in multiple projects serve as better citizen scientists?
- Can we use embedded tracking and assessment in SciStarter to understand linkages between participation dynamics across projects and learning outcomes?
- What roles do different projects play in the landscape network of projects?



Limited Studies

# Future



Track Advocacy



Integrate citizen science tools



Develop microcredits or badges

# Future

Translate informal STEM experiences into formal accreditations.

Embedded assessments to measure practiced or acquired competencies.

# Future

Getting Started Kits!



# Future



# Future

Interested in joining our Education Advisory Committee?

Email [Darlene@SciStarter.com](mailto:Darlene@SciStarter.com)

*People-  
Powered  
Science*

