





**IN 2019, WE RELEASED A TOOL TO
HELP YOU MEASURE TREE HEIGHTS**

Trees Tool

We released the Trees tool on March 29, 2019. Within the first month, you submitted 2,260 observations, and by November, you shared over 10,000 tree height measurements from around the world.



IN 2019, WE MADE LOTS OF NEW FRIENDS

**Although
we wish we
could meet all of our
volunteers, we're grateful
for all of the opportunities to
meet just a few of you!**



IN 2019, YOU HELPED US OBSERVE THE SOUTH AMERICAN ECLIPSE

Solar Eclipse

Many of you noticed that the Eclipse tool was re-activated in the app, but some of you were lucky enough to experience it! The total solar eclipse could be seen from parts of Chile and Argentina on July 2, 2019.



IN 2019, WE FOLLOWED IN THE FOOTSTEPS OF LEWIS AND CLARK

GO on a Trail

This summer you joined us on the Lewis and Clark National Historic Trail and shared 881 land cover observations along the trail and 1,974 around the world.

IN 2019, YOU TOOK OBSERVATIONS WITH YOUR FURRY FRIENDS

Meet Some of
the Pups



"Cooper - ready for treats!"



"Mitchell says, 'Hi!'"



"Lucky had a haircut."



**IN 2019, YOU SUBMITTED 45 THOUSAND
CLOUD OBSERVATIONS IN ONE MONTH**

Fall Cloud Challenge

From October 15 to November 15, citizen scientists shared over 45,300 cloud observations from every continent. We also recieved observations of dust, smoke, and purple skies.

- 
- Biking
 - Reading
 - Canoeing
 - Dog Walking
 - Snowboarding
 - Guitar Playing
 - Errand Running
 - Quesadilla Eating

**IN 2019, YOU TOOK OBSERVATIONS
WHILE MULTI-TASKING**

**Thanks
for making
time for science
whenever you can!**

IN 2019, YOU VISITED NATIONAL PARKS

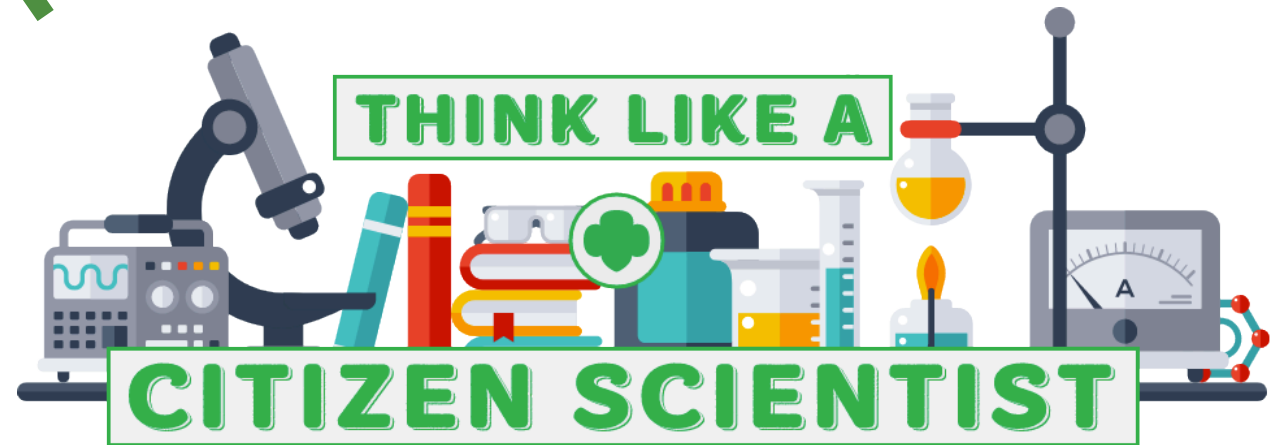
YELLOWSTONE PARK
NATIONAL PARK SERVICE
U.S. DEPARTMENT OF THE INTERIOR

RANGER NATURALIST SERVICE
FIELD TRIPS • CAMPFIRE PROGRAMS
NATURAL HISTORY TALKS & EXHIBITS
GENERAL INFORMATION

ZION PARK
NATIONAL PARK SERVICE

IN 2019, GIRL SCOUTS LEARNED TO THINK LIKE CITIZEN SCIENTISTS

On April 13, 2019, Girl Scouts celebrated Citizen Science Day with GLOBE Observer and met NASA cloud, mosquito, and land cover scientists!





IN 2019, YOU REPORTED

DUST AND SMOKE IN YOUR SKY

Dust Research

Dust storms are dangerous and hard to predict. Using the Clouds tool, citizen scientists are filling data gaps for model forecasts and satellite-derived dust products.

IN 2019, SCOUTS AUSTRALIA MAPPED OVER 4000 KILOMETERS OF LAND COVER



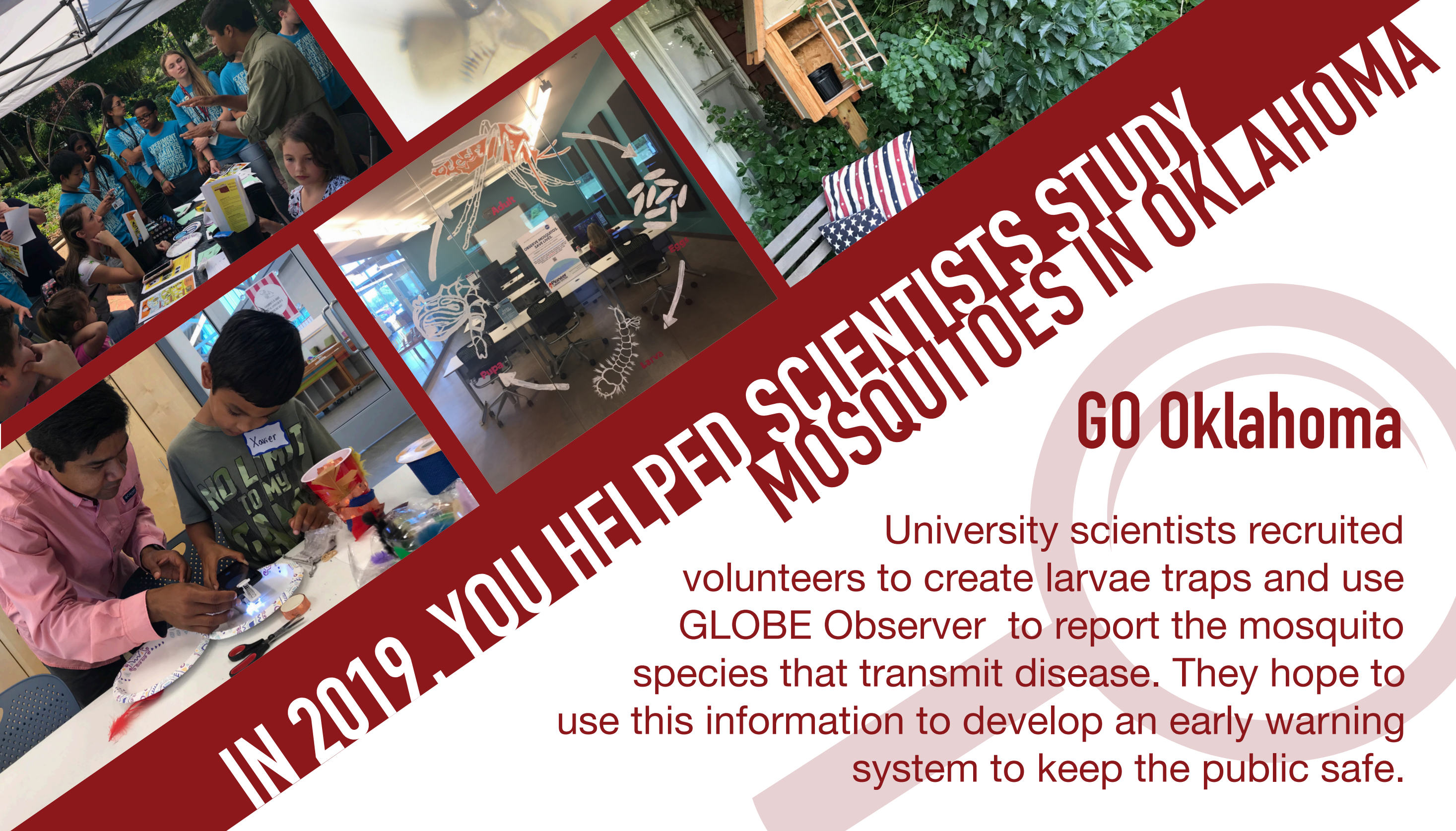
Scientists from Geoscience Australia and CSIRO challenged scouts to map land cover using the GLOBE Observer app. Mitchell Haley, Samuel Haley, and Josh Lange were recognized at the GEO Week Gala Dinner.



IN 2019, YOU OBSERVED CLOUDS FROM THE ENDS OF THE EARTH

Arctic and Antarctic Expeditions

GLOBE Observer is one of the projects featured by the Polar Citizen Science Collective, which encourages tour operators and their passengers to participate in data collection aboard their vessels.



IN 2019, YOU HELPED SCIENTISTS STUDY MOSQUITOES IN OKLAHOMA

GO Oklahoma

University scientists recruited volunteers to create larvae traps and use GLOBE Observer to report the mosquito species that transmit disease. They hope to use this information to develop an early warning system to keep the public safe.



IN 2019, YOU DOCUMENTED WILDFIRE RECOVERY

An observation from Alaska shows fireweed blooming among charred trunks. Fireweed is known for its ability to rapidly cover recently burned areas.



IN 2019, WE SPENT TIME AT THE LIBRARY

Neighborhood Science Program

Los Angeles Public Library
patrons use the GLOBE Observer
app during their Neighborhood
Science programs.



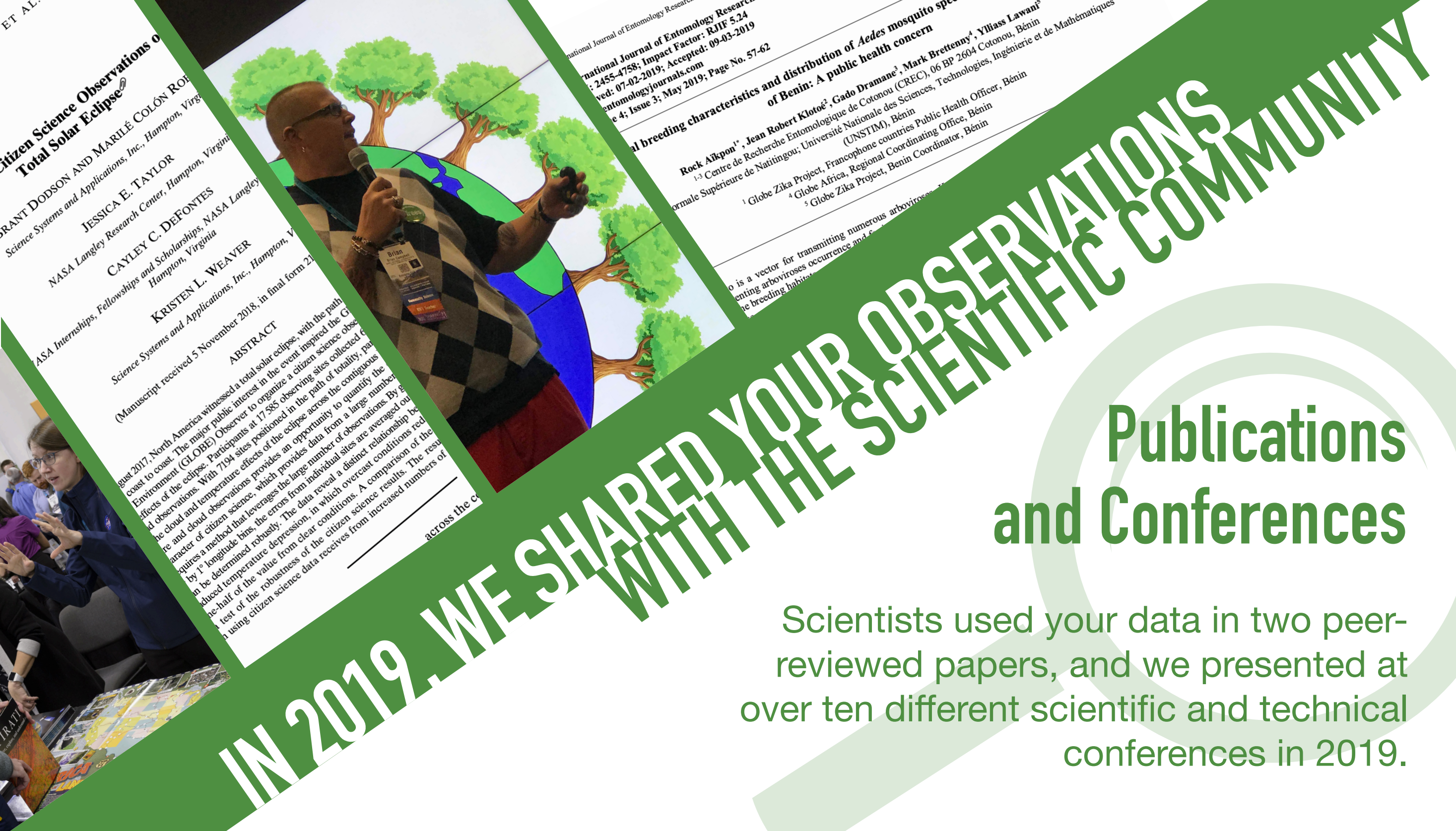
IN 2019, YOU DOCUMENTED MOSQUITO HABITATS

We kicked off mosquito season with a Mosquito Blitz from April 7-13, and you responded by sharing your best photos of mosquito habitats!



IN 2019, YOU MADE CITIZEN SCIENCE POETIC

While we
always appreciate
your photos and field
notes for their scientific
value, sometimes we appreciate
them for their creativity, as well.



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Citizen Science Observations of Total Solar Eclipse
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ABSTRACT
August 2017, North America witnessed a total solar eclipse, with the path of totality stretching from the Gulf of Mexico to the Pacific coast. The major public interest in the event inspired the Global Eclipse Observations (GLOBE) project, a citizen science effort to collect and analyze data on the effects of the eclipse. Participants at 17585 observing sites collected data on cloud cover, temperature, and other atmospheric conditions. The project provides an opportunity to quantify the effects of the eclipse on the environment. By using citizen science data, we can better understand the relationship between the eclipse and the environment. The data reveals a distinct relationship between the eclipse and the environment, showing a decrease in cloud cover and an increase in temperature. This relationship is consistent across the entire path of totality. The data also shows that the eclipse had a significant impact on the environment, with a decrease in cloud cover and an increase in temperature. This relationship is consistent across the entire path of totality. The data also shows that the eclipse had a significant impact on the environment, with a decrease in cloud cover and an increase in temperature. This relationship is consistent across the entire path of totality.

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Al breeding characteristics and distribution of *Aedes mosquito* species of Benin: A public health concern
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o is a vector for transmitting numerous arboviruses
enting arboviruses occurrence and
he breeding habits

IN 2019, WE SHARED YOUR OBSERVATIONS WITH THE SCIENTIFIC COMMUNITY

Publications and Conferences

Scientists used your data in two peer-reviewed papers, and we presented at over ten different scientific and technical conferences in 2019.



**IN 2019 YOU WORKED TOGETHER TO
EXPLORE THE ENVIRONMENT AROUND YOU**

Team Feature

We know from your photos that you often work in teams to do citizen science; but now, using a new feature, you can create GLOBE teams to see your collective impact.