

NASA ECLIPSE SCIENCE DEBRIEF

April 9th, 2024

What have we learned so far?
What was the experience like?
What is next in eclipse science?

SHARE YOUR EXPERIENCE WITH US!



scistarter

LIVE

Science we can do together.

The SciStarter LIVE! Team



Emma Giles

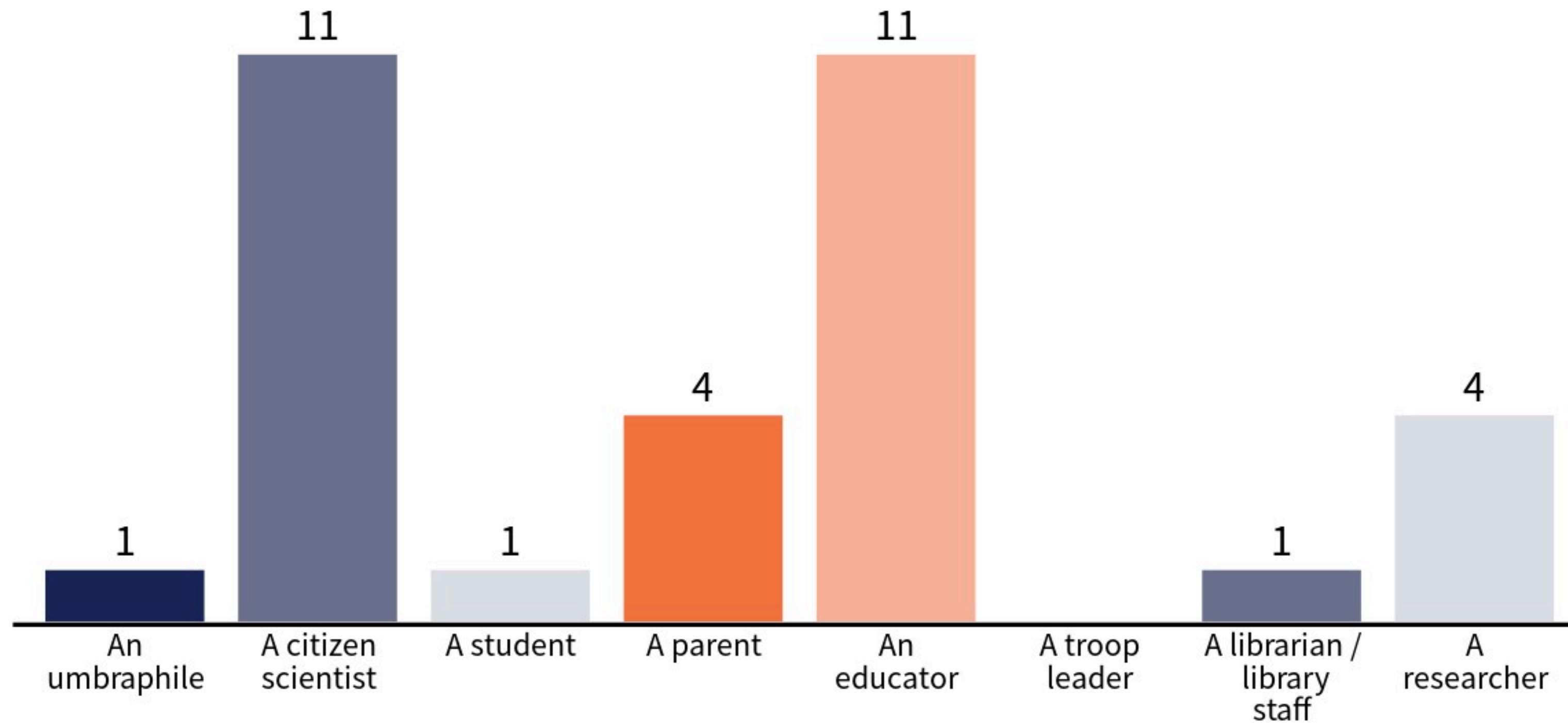
Manager of Public
Outreach and
Programs



**Roland
Moundalak**

Senior Manager of
Web and Program
Quality Assurance

Are you...





Citizen Science

A **collaboration** between scientists and those of us who are curious, concerned and motivated to make a difference.

It's how people can make an impact on issues they care about...and help science!

PEOPLE LIKE YOU ARE

DISCOVERING
NEW WORLDS



FIND A PROJECT

by Keyword

e.g., weather, dog...

by Topic

Select a topic

Online only



Near me



Find a Project

Advanced search

Step 1: Join SciStarter.org







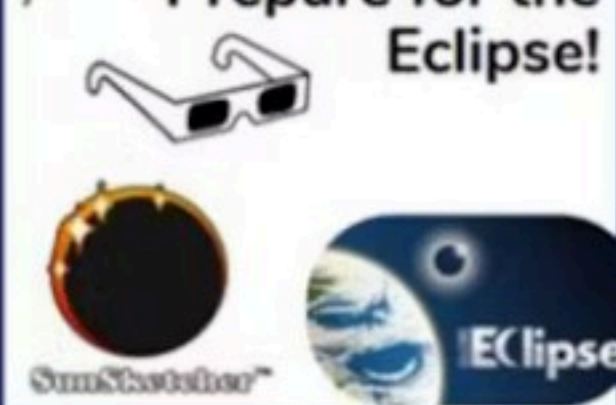


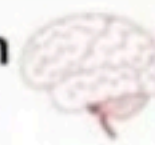












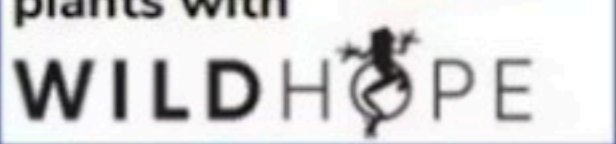









SciStarter is a globally acclaimed, online citizen science hub where more than 1,600 projects from all over the world have been organized and made searchable!

**ONE
MILLION**

ACTS OF SCIENCE

— CITIZEN SCIENCE MONTH —

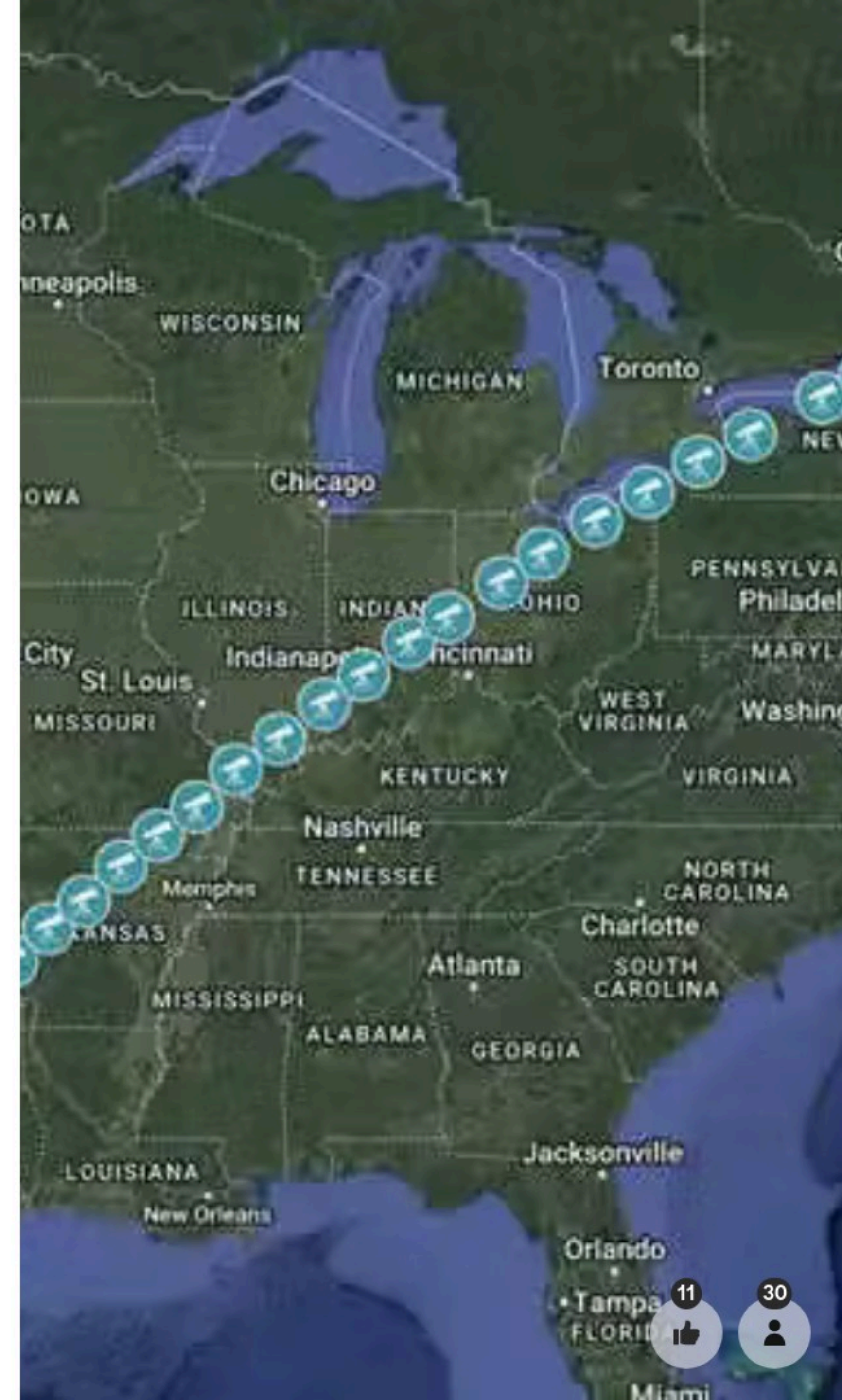
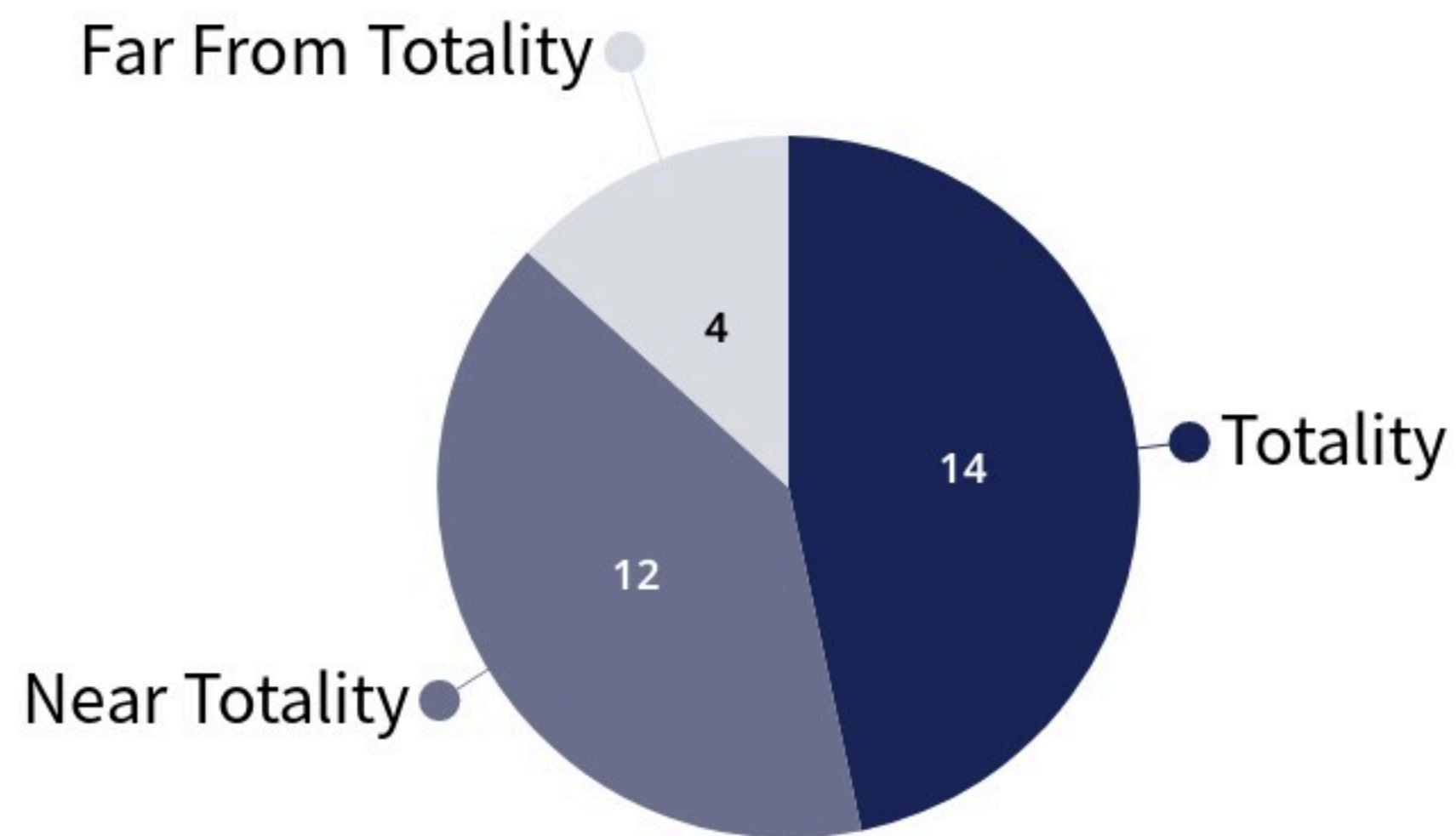
APRIL

SUN	MON	TUE	WED	THU	FRI	SAT	
<p>ONE MILLION ACTS OF SCIENCE CITIZEN SCIENCE MONTH</p>	<p>1 It's Frog Month! So Let's Leap into April with a "Froject!"</p> 	<p>2 Celebrate Dark Sky Week by measuring light pollution</p>  <p>Citizen Science: The Conference</p>	<p>3 Supplement Satellite data on Find a Rainbow Day</p>  <p>Assess your health with Outbreaks Near Me for Public Health Week</p>	<p>4 Prepare for the Eclipse with a Virtual Town Hall: Citizen Science & The Solar Eclipse</p>  <p>Click here if you work with AI!</p>	<p>5 Stop & smell the roses on Walk to Work Day</p> 	<p>6 Find wildlife in camera trap images during National Wildlife Week</p> 	
<p>7 Prepare for the Eclipse!</p> 	<p>8 Document animal behavior during the North American Total Solar Eclipse</p> 	<p>9 Debrief the eclipse with NASA</p> 	<p>10 Map the Brain with Eyewire</p>  <p>Check out a citizen science kit from your library- it's National Library Week!</p>	<p>11 Survey your dog for Pet Day!</p>  <p>#OneMillionActsofScience #PetDay</p>	<p>12 Walk on Your Wild Side today and try something new:</p>  <p>30-Minute Citizen Science</p>	<p>13 Join the fun!</p>  <p>#LeaveNoTrashBehind Challenge</p>	
<p>14 Look Up at the Sky Today & become a climate reporter</p>  <p>Chat with Dolphins!</p>	<p>15 Spend the halfway point with our team!</p>  <p>THE 12-HOUR #OneMillionActsofScience PALOOZA</p>	<p>16 Find us on the NSF's social media</p>  <p>Be a Fun-gi & search for Mushrooms!</p> 	<p>17 Count Bats for Bat Day</p>  <p>Mosquito Mapper Megathon with UniqueMappers Nigeria</p>	<p>18 FlyWays A watch party with SciStarter</p>  <p>CitSci Across the Globe</p>	<p>19 Become a student of nature for Environmental Education Week</p> 	<p>20 Explore & document nature at a National Park</p> 	
<p>21 Try our "Anytime, Anywhere" projects for volunteer week!</p>  <p>Hey Volunteers! Check out our Stickers on Instagram!</p>	<p>22 Plant & Monitor Native plants with WILDHOPE</p> 	<p>23 Spot accessibility problems in city sidewalks</p> 	<p>24 What do you hear? Tell us for Noise Awareness Day</p>  <p>Verizon Volunteer Day!</p>	<p>25 Hug a tree on Arbor Day</p>  <p>Join the Rockhopper Fiesta for Penguin Day</p> <p>Game on! Play a game with Science Friday!</p>	<p>26 Join a global challenge to observe all wildlife in your city</p>  <p>+ Audubon Day! ID all birds you see!</p>	<p>27 Honor & protect marine animals with citizen science</p> 	
<p>28 Play a game to accelerate Alzheimer's research</p>  <p>STALL CATCHERS An EyesOnALZ game</p>	<p>29 Bridge Gaps in Medical & Societal Accessibility with All of Us</p>  <p>BE ONE IN A MILLION</p>	<p>30 Let's Celebrate ONE MILLION ACTS OF SCIENCE</p> 	<p>Anytime between April 1-30, 2024:</p> <ol style="list-style-type: none"> 1 Participate in any project or event highlighted on this calendar or on OneMillionActsofScience.org 2 Report your Act or post it on social media using #OneMillionActsofScience for a chance to win prizes (use the SciStarter stickers on Instagram!) 3 Visit OneMillionActsofScience.org to track progress and project outcomes 				

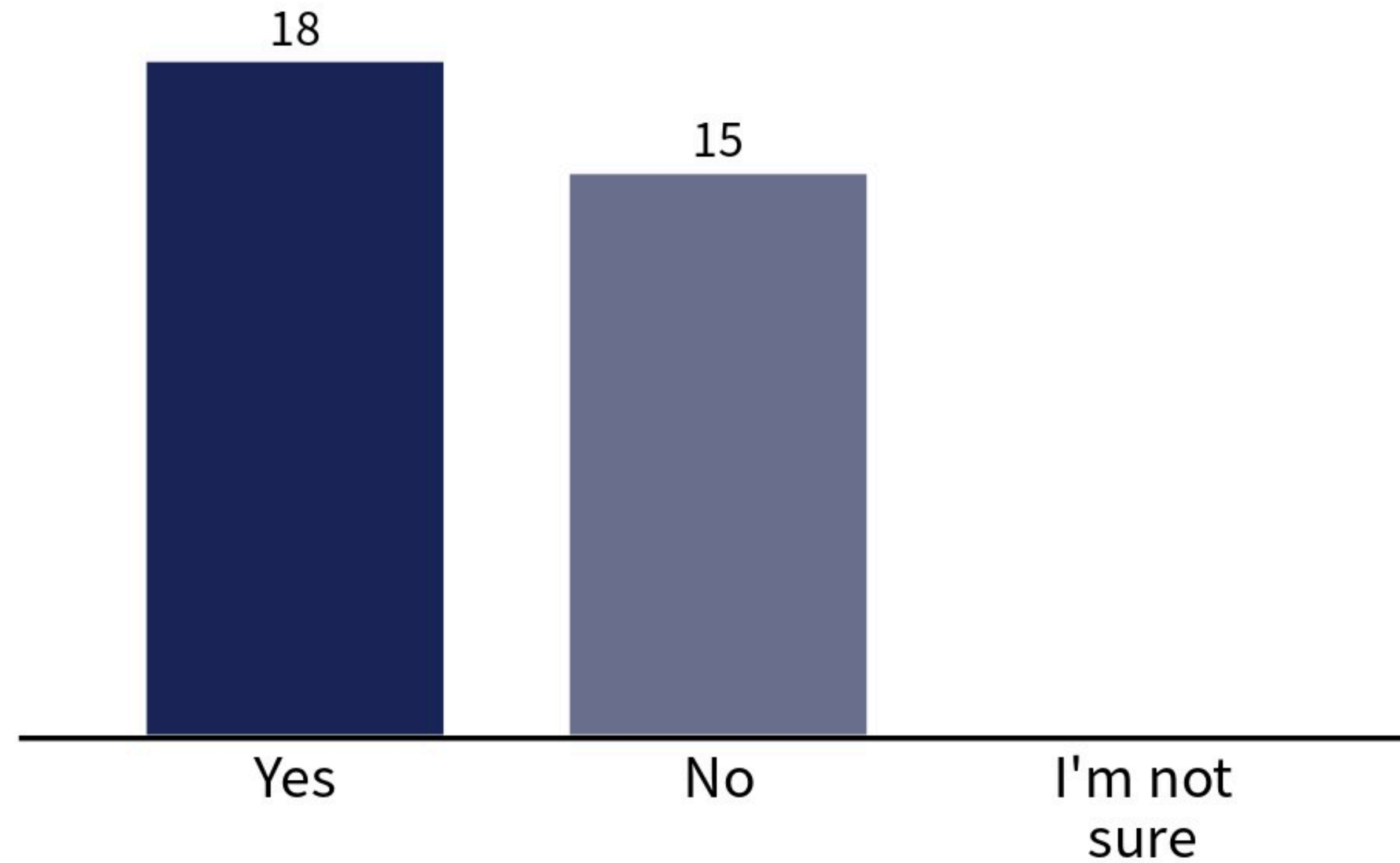
Where were you during the eclipse?



Did you see eclipse totality?



Was this your first total solar eclipse?



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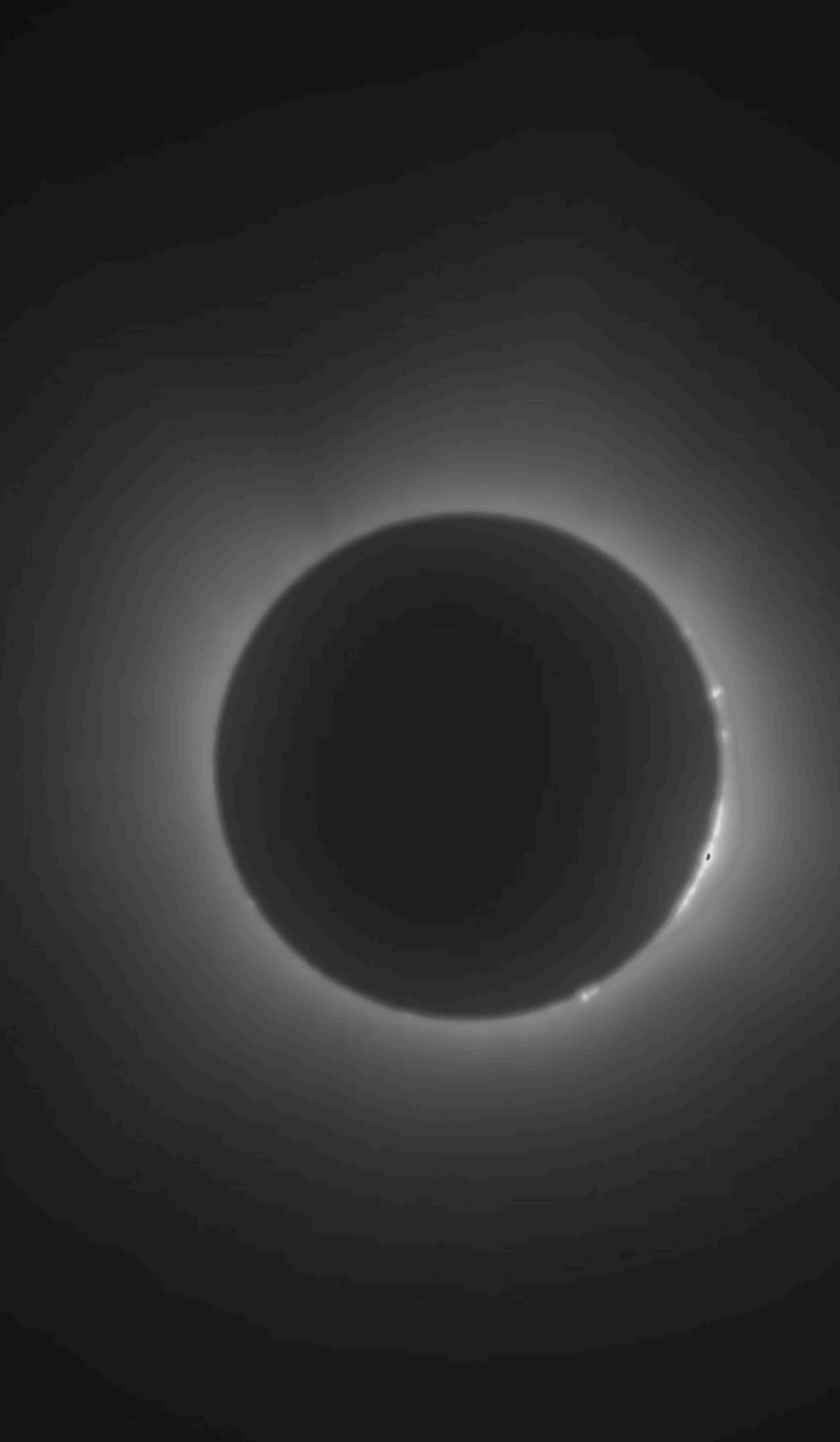
SHARE YOUR EXPERIENCE WITH US!



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Science we can do together.





What project, if any, did you participate in?



SunSketcher



Eclipse Soundscapes: Data
Collector



Eclipse Soundscapes:
Observer

0

Eclipse Megamovie 2024



Citizen CATE 2024

0

DEB Initiative



GLOBE Observer: Eclipse

7



18



What did you experience during the eclipse? (See, hear, feel, etc)

Cooler and quieter

It was amazing! We saw it in the weather and the temperature got cooler!

Red line covering the bottom of the moon!

Temperature change of 7 degrees F

It made me feel dizzy

I wasn't prepared for it to feel so otherworldly...

Change in temperature

It look like it was going to rain.

What did you experience during the eclipse? (See, hear, feel, etc)

it was cloudy here

The birds got really loud after max. I was surprised that it wasn't darker in partiality.

observed bird behavior
temp drop

I felt weird and things were eerie

I got cold, put my jacket on. I saw the planets, it got quiet, the squirrels came out enforce

eerily quiet, very still

The humans around me were giddy and chatty. At 82 percent totality the quality of the colors around us taking on a gold/amber tone.

Tulips closed up!

What did you experience during the eclipse? (See, hear, feel, etc)

It got cold! The human response of excitement was remarkable. Wildlife (especially birds) got quiet.

Cloudy, cool, pressure changes for sure.

Canada Geese got quiet, weird for them this time of year

Temperature dropping, insect sounds, dogs barking, sunset all the way around the horizon.

It was mostly cloudy but we did see 77% obscuration. It got cold!

Sort of hazy darkness

rooster crowed

My 7 year old was the first to notice the temperature drop. Caught some flares in totality pictures.

What did you experience during the eclipse? (See, hear, feel, etc)

It was so, so very different during totality than even just before or after.

Feeling a little dizzy. Felt temperature change. Tulips closed up

Birds flew in flocks
Red Orange solar flare?
Saw Venus
Cleared after morning of clouds & storm alerts in Dallas

Birds starting singing at once right at the darkest point.

The Eclipse Soundscapes Project has lots of data and observations, but it will take us some time — and more help from participants! — to analyze the data.

What is being studied?

The true shape of the sun

Solar Jets and Plumes: the sources, paths, and behavior in the Corona

The the magnetic field and solar winds generated with the solar corona and why the corona is **hotter** than the sun

Solar-powered processes in Earth's atmosphere like air temperature, clouds and wind, especially compared across different climate zones

How life on Earth, specifically wildlife, respond to solar eclipses

**WHAT COMES
NEXT?**

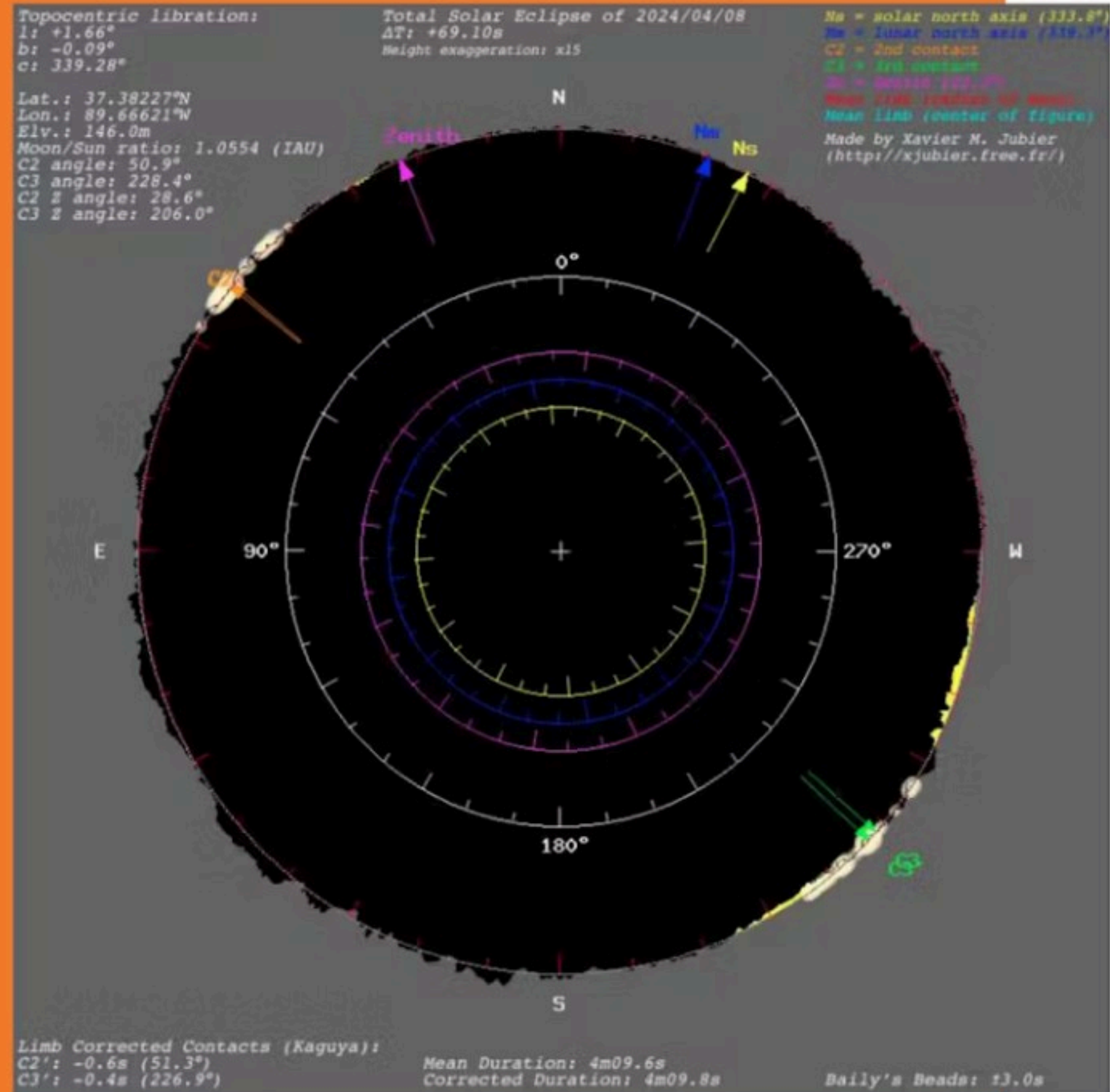
What's Next for Sunsketcher?

Over 100,000 photos so far!

We need to match your images and locations with those in our Baily's Beads predictions.

This will allow us to make small adjustments to our current measurements and define the size and shape of the sun more accurately.

Stay tuned for how you can help us do this!



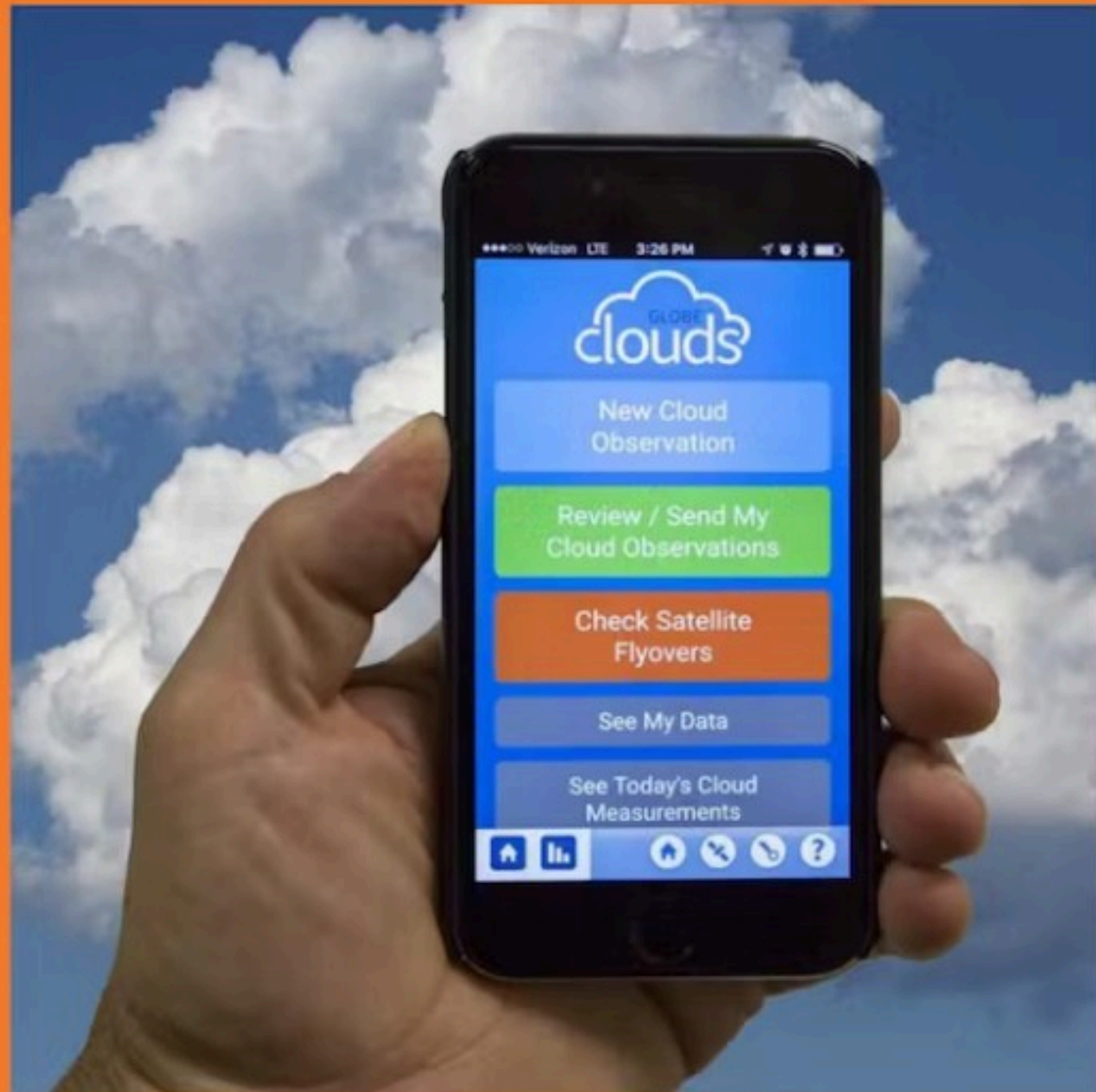
What's Next for Soundscapes?



Our results from this study will further **soundscape ecology**, an emerging field that studies the acoustic, or sound, properties of ecosystems to better understand them.

Stay tuned to find out how you can participate as an Eclipse Soundscapes Data Analyst!

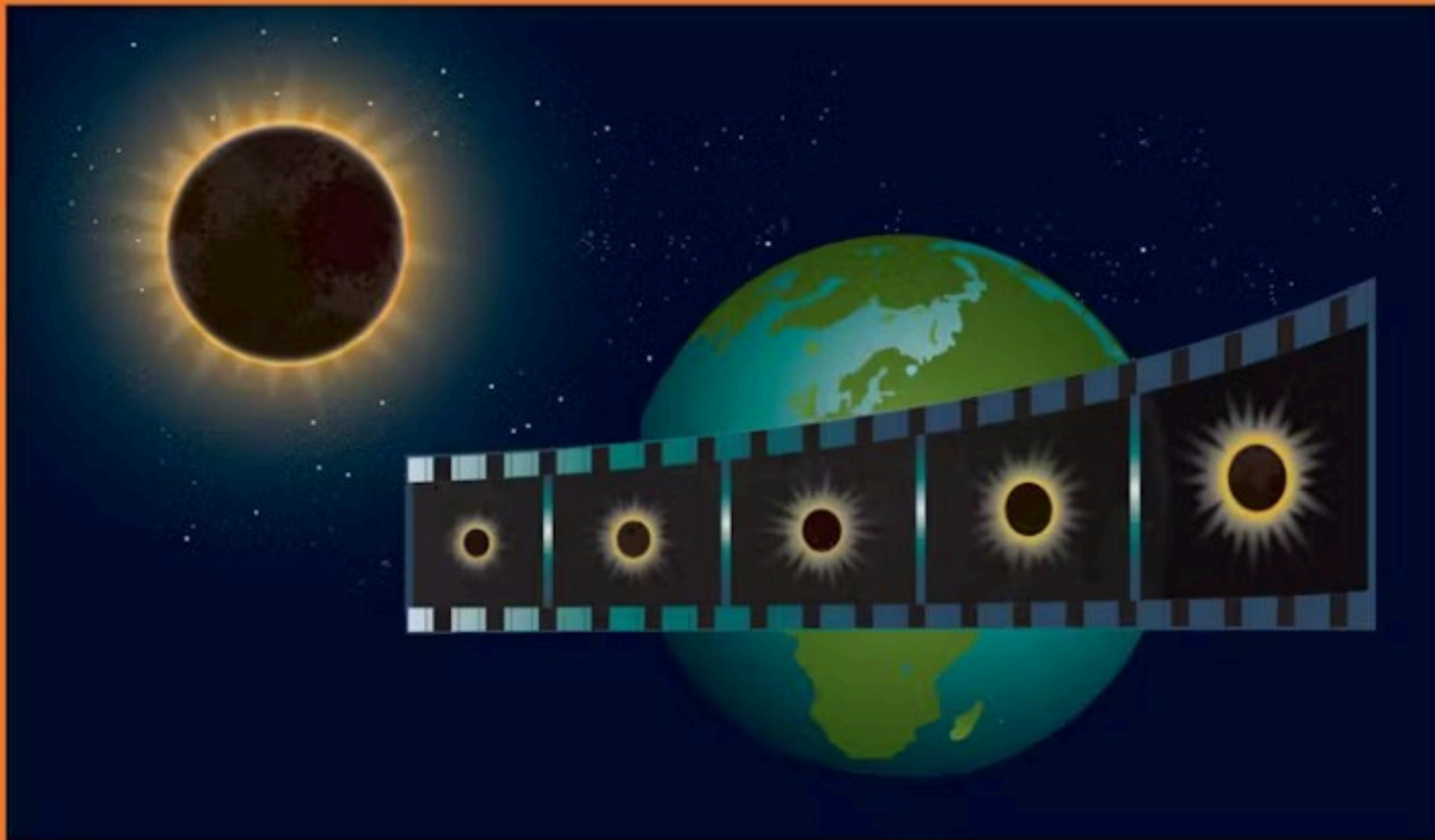
What's Next for GLOBE Observer: Eclipse



The GLOBE Eclipse Challenge: Clouds and Our Solar-Powered Earth continues through **April 15th**, so please continue taking those **cloud observations!**

Our colleagues at NASA Langley will start their analysis very soon, but all of the data, including cloud photos from the day of the eclipse, is publicly available in the [GLOBE Visualization System](#), so we also encourage all of you to explore it yourselves!

What's Next for Eclipse Megamovie?



It's time to start preparing the data to be analyzed and we need your help for the next step!

We are looking for any volunteers who are proficient in **Python code or implementation of Machine Learning (AI)** in the aligning photographs or other data. Watch the website for details on how to sign up:
<https://eclipsemegamovie.org>

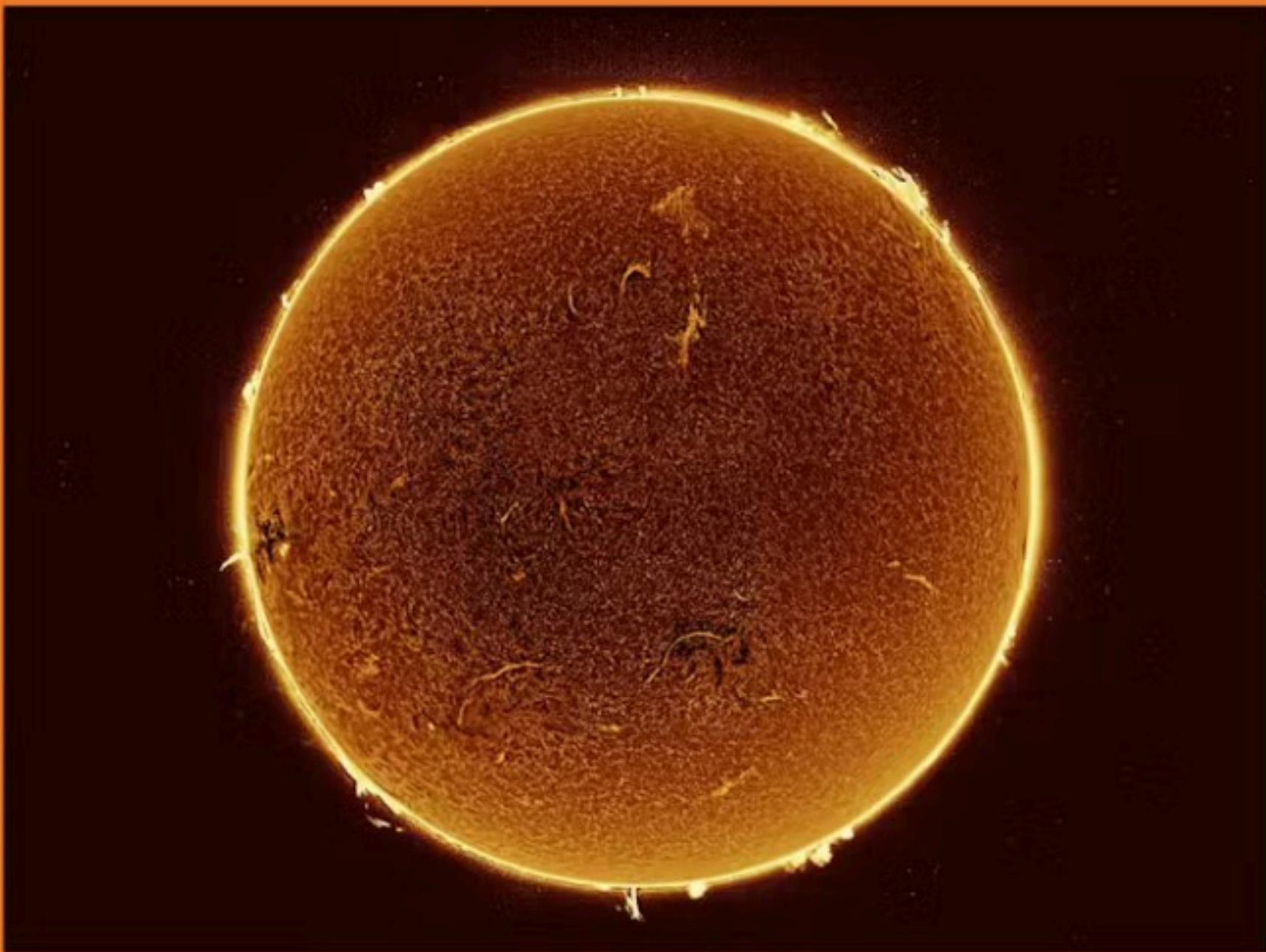
What's Next for Citizen CATE?

The CATE team will start data calibration and integration.

All data results and artifacts generated during the 2023 and 2024 total solar eclipses will be made publicly available!

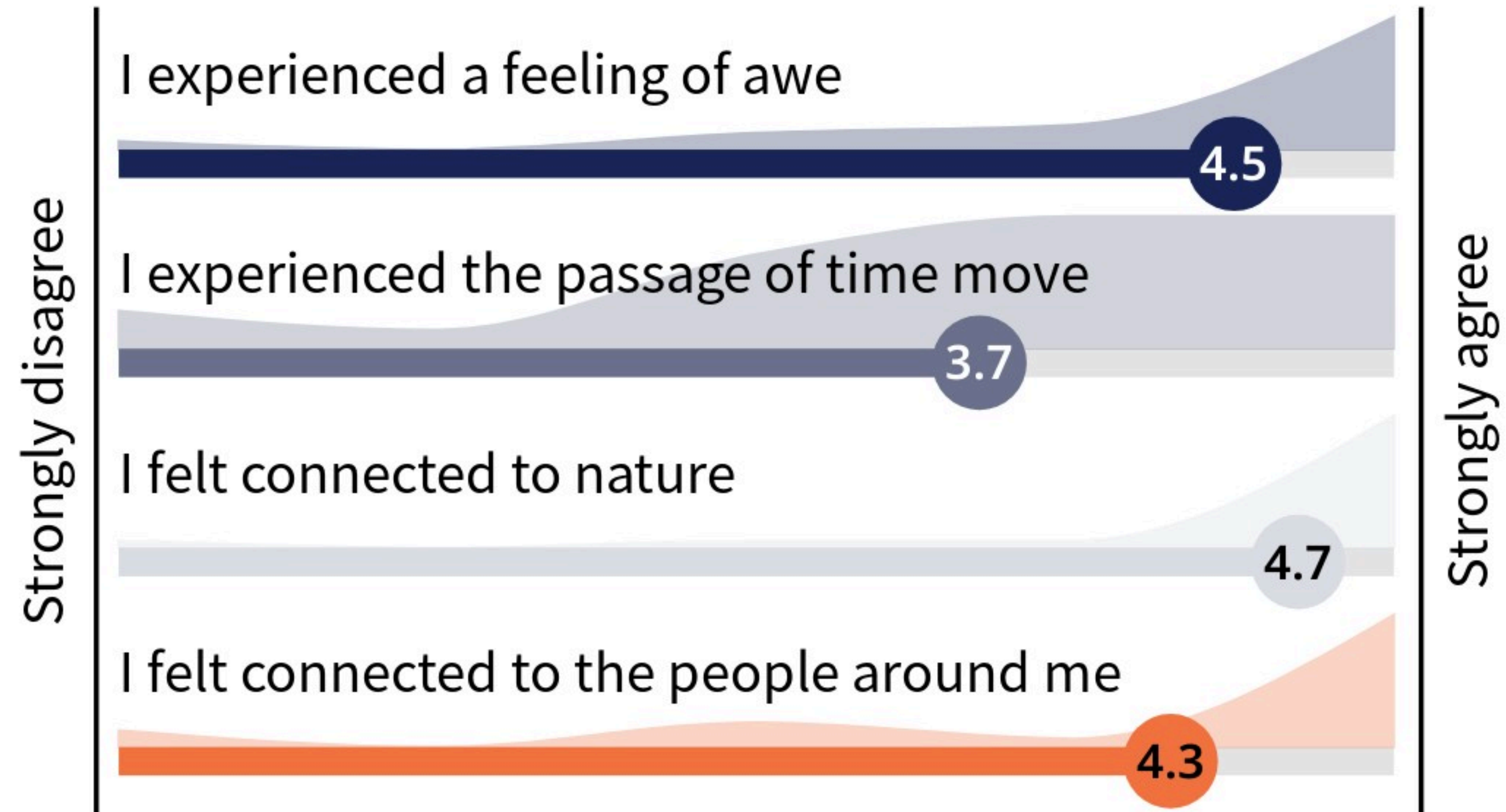


What's Next for DEB Initiative?



Our trained teams and partnered institutions will continue using the telescopes, mounts and additional tech in **more heliophysics projects** in the coming years!

Scales



What's Next for Do NASA Science?



These grand cosmic alignments help scientists on Earth make amazing discoveries about the universe, whether or not they are visible from Earth!

Let's turn our attention over to projects that advance transiting planet research:



Planet Hunters TESS



Exoplanet Watch



UNITE



Do
NASA
Science

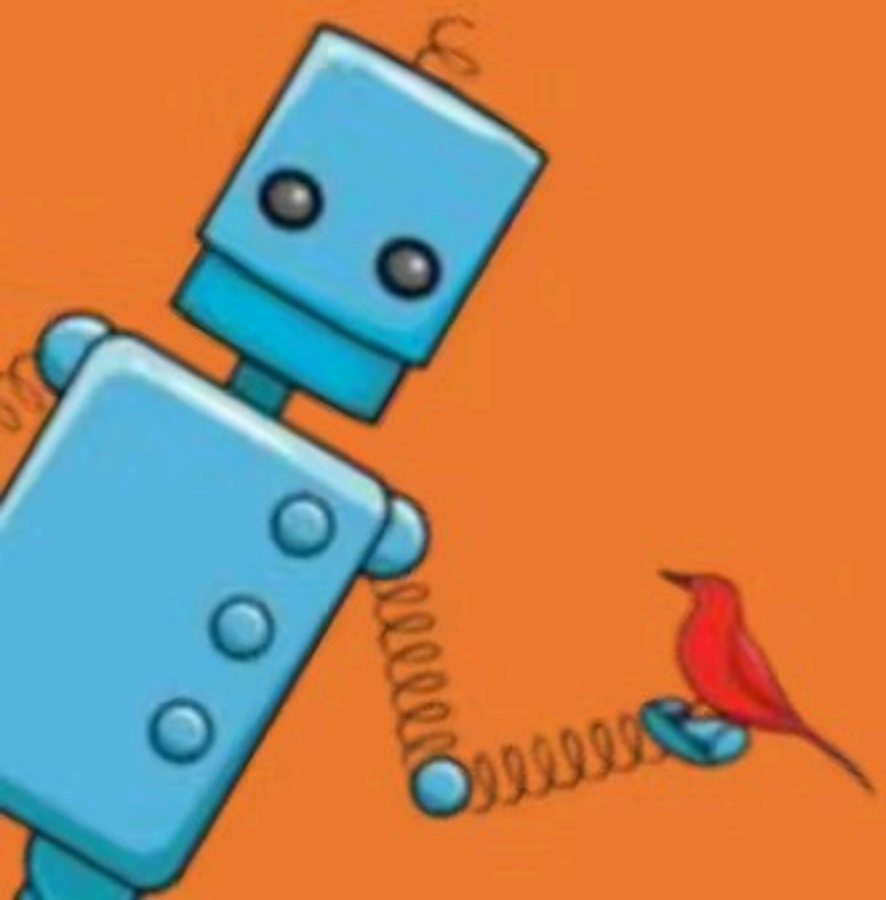
LIVE!



Partner

Q&A

Add your Questions to the Q&A box!





Upcoming events



scistarter

LIVE

Science we can do together.

Mark your calendars!

- **April 16th** - Make Your City Nature Challenge Observations Count! (from the Phx, AZ CNC planning team)
- **April 23rd** - Project Sidewalk Power Hour: Find Sidewalk Accessibility Problems in Cities from Anywhere!
- **April 30th** - Celebrating One Million Acts of Science: The Grand Finale!

<https://blog.scistarter.org/2022/08/scistarter-live/>



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Ask the Community

At the bottom of every SciStarter project page, you can leave a review or ask a question about the project.



Ask the Project Leaders

Send a message to a project's leaders with the "Message Project" button on each SciStarter project page.



Ask SciStarter

Email

Info@SciStarter.org
and we'll do our best to help you out!



Listen to the Podcast!

[SciStarter.org/podcast](https://www.scistarter.org/podcast)

Available also on YouTube, Spotify, Google, Apple, Podbean, and Stitcher



Take a Training

At [SciStarter.org/training](https://www.scistarter.org/training), you'll find free, self-guided modules like our Foundations of Citizen Science course.



Find Your Next Project!

Ready for more?
Head back to [SciStarter.org/finder](https://www.scistarter.org/finder) and pick out your next project to contribute to!

Resources & More

If you ever get stuck or want a boost, try these!

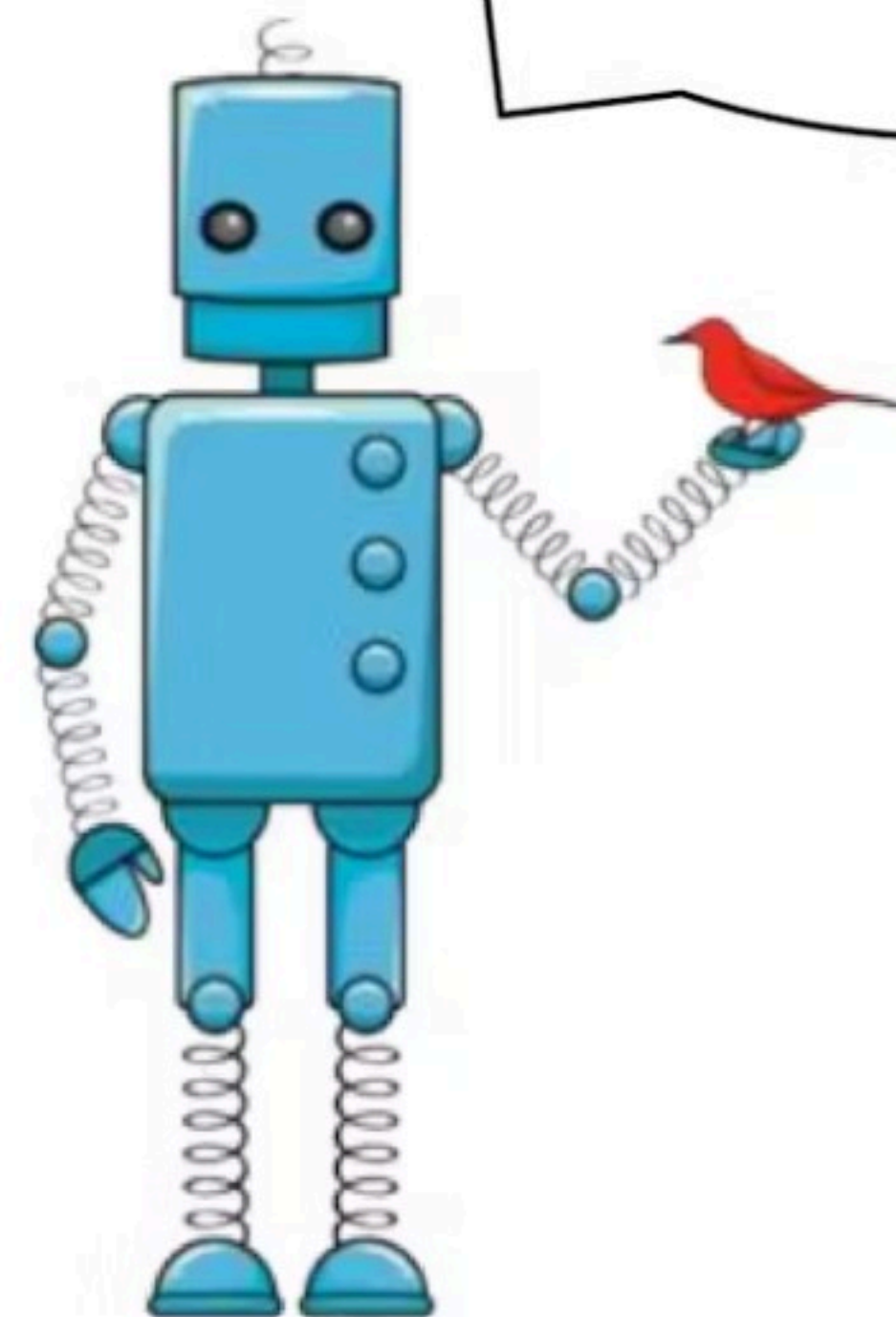
If you registered for this event, we will email you these links.



Join us Tuesday, April 16th to
learn how to participate in
the City Nature Challenge!

Thanks for watching!

Reach SciStarter at Info@SciStarter.org



Please fill out
our post-event
survey!