

Globe At Night - Bringing Dark Skies and Citizen Science together

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Light Pollution affects...

Energy, Safety & Cost



Astronomical Observations



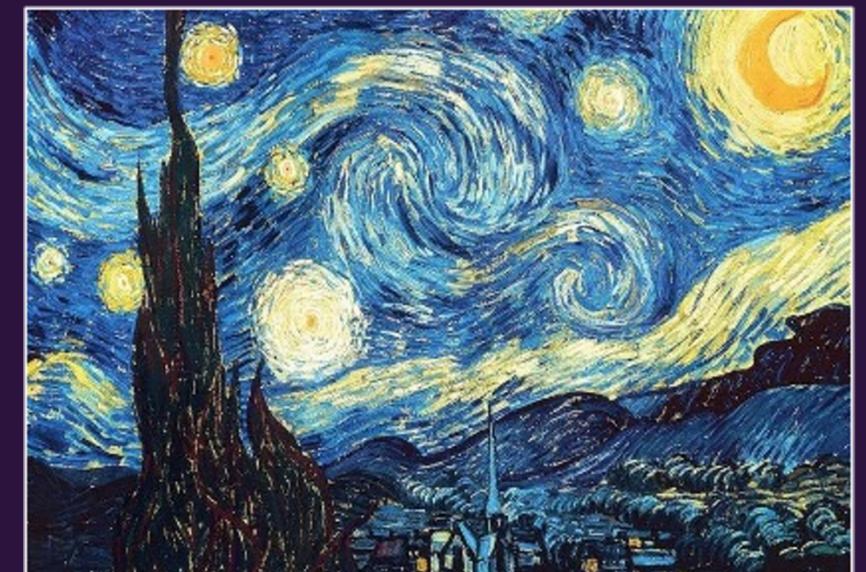
Human Health



Wildlife



Cultural Heritage



What can we do?

Protecting the night sky starts with **YOU!**

1 Light only what you need



2 Use energy efficient bulbs and only as bright as you need



3 Shield lights and direct them down



4 Only use light when you need it



5 Choose warm white light bulbs



6 Join DarkSky
We need your help to continue the fight against light pollution.



Globe at Night

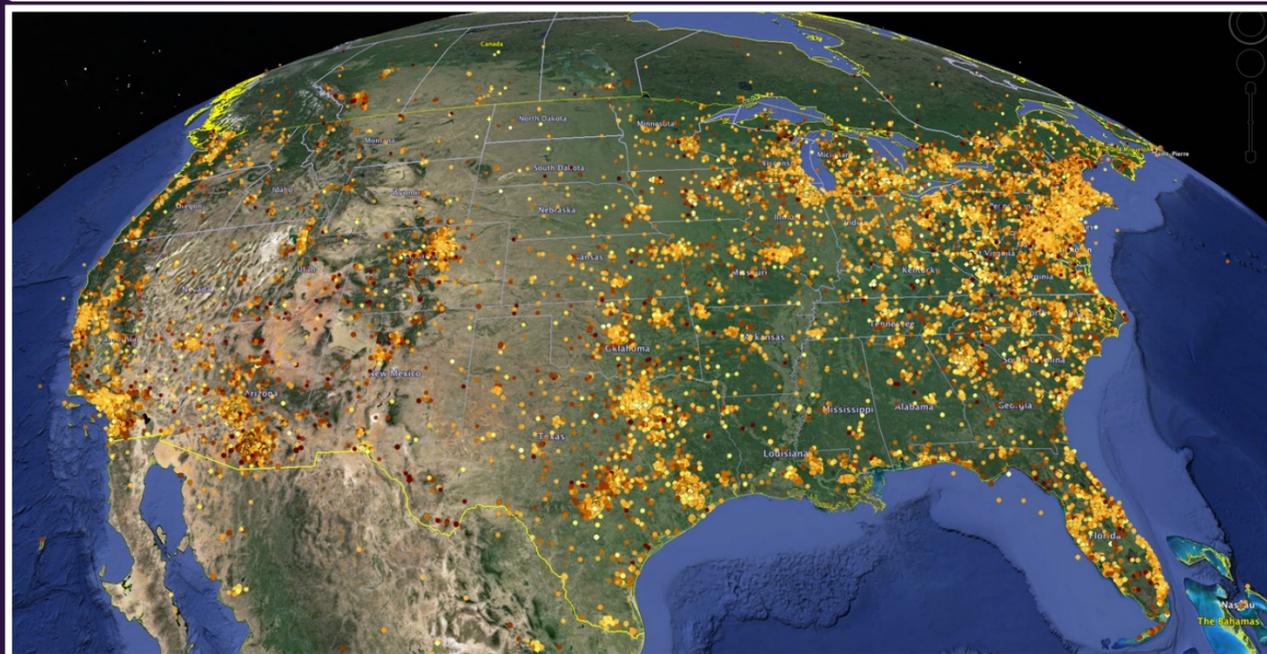
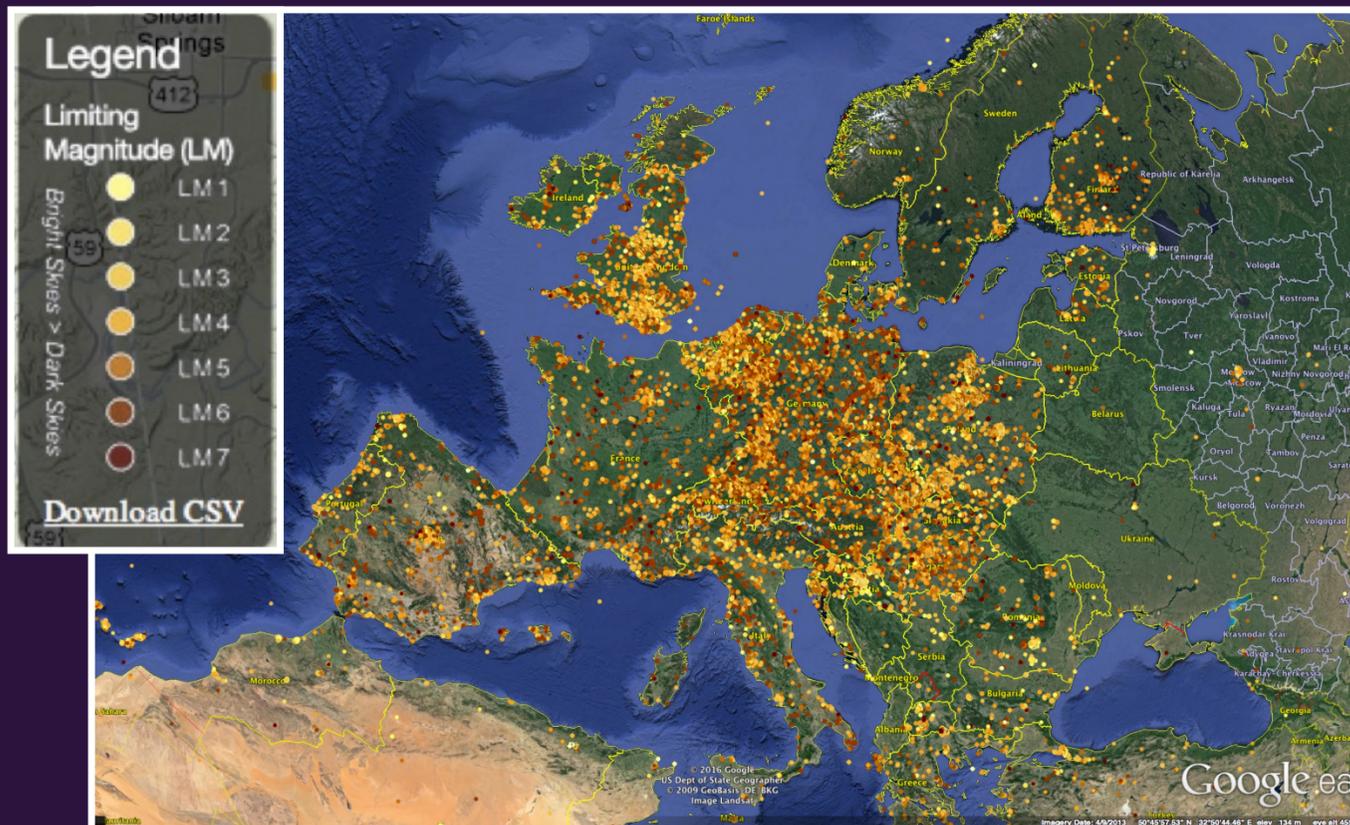
What: Invites citizen-scientists to measure their night sky brightness and submit their observations to a website from a computer or smart phone: www.globeatnight.org

Who: People aged 8 and up

When: 10-day campaigns each month (no Moon in 1st half of night)

Where: Anywhere; everywhere!

How many: About 310,000 measurements from 180 countries in the last 19 years.



Fun & easy to participate in Globe at Night!

Here is how to start:

- Go outside more than an hour after sunset.
- Make sure there's no moon.
- Then....

How to participate in the Globe at Night campaign

Globe at Night

1 Turn off as many lights as possible in surrounding area.

Let your eyes become used to the dark for 15 minutes before making your first observation. This will allow you to see more stars!

Globe at Night

2 Find the constellation of the month.

Orion is east of south as evening twilight ends and moves west as the evening progresses.

Globe at Night

3 Go to the Globe at Night Report Page.

www.globeatnight.org/webapp/
Begin entering your measurements.

Globe at Night

4 Enter the date, time and location.

When and where did you make your observation.

Globe at Night

5 Choose a star chart.

Choose the star chart that looks most closely to what you see toward your constellation.

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6 How much cloud cover?

Choose the amount of cloud cover at the time of observation from the four images provided.

Globe at Night

7 Enter Data.

If you used a Sky Quality Meter (SQM), enter the meter reading here.

Globe at Night

8 Click on the Submit Data button.

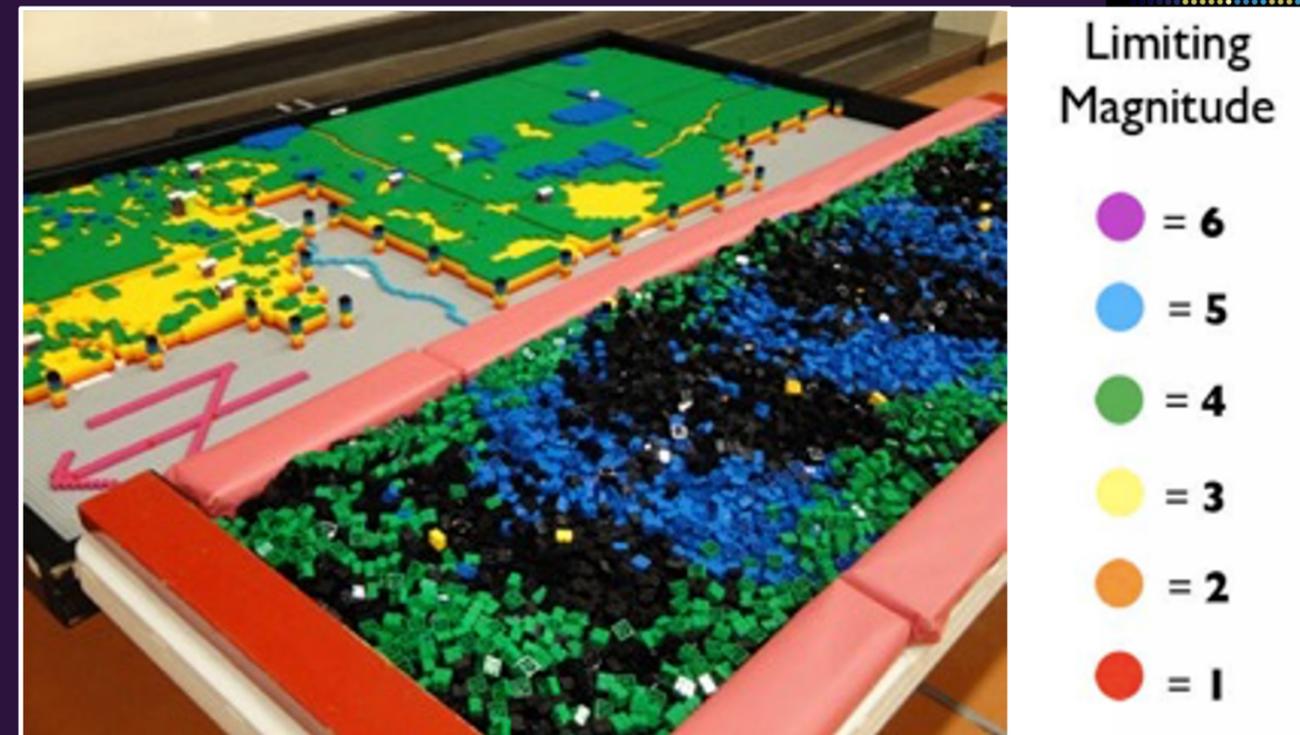
You have just contributed to monitoring light pollution worldwide. **Thank you!**

Globe at Night



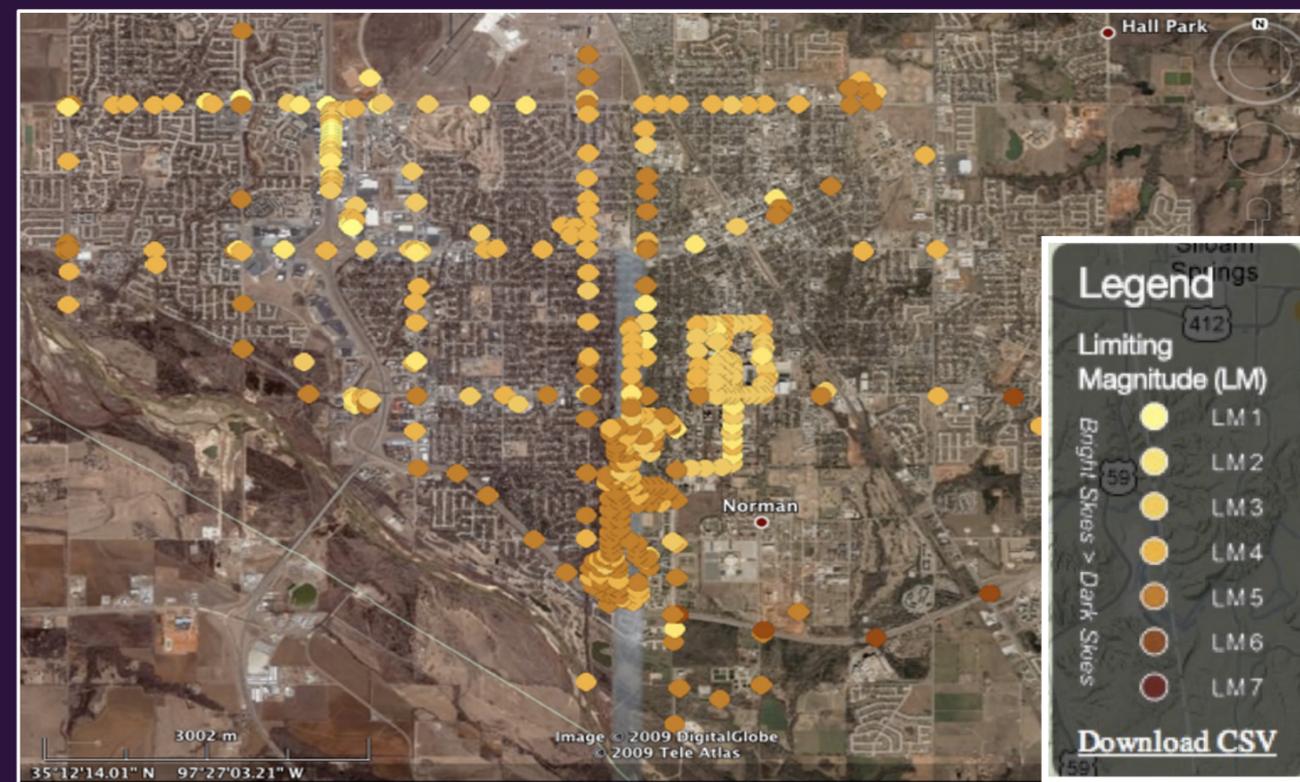
Students and Globe at Night

3700 elementary-middle schoolers asked how much of the night sky have they already lost. They used their Globe at Night observations to create a lego map using 35000 pieces.



Lighting inventories by high school students and amateur astronomers (using Globe at Night observations) convince city council to strengthen lighting laws.

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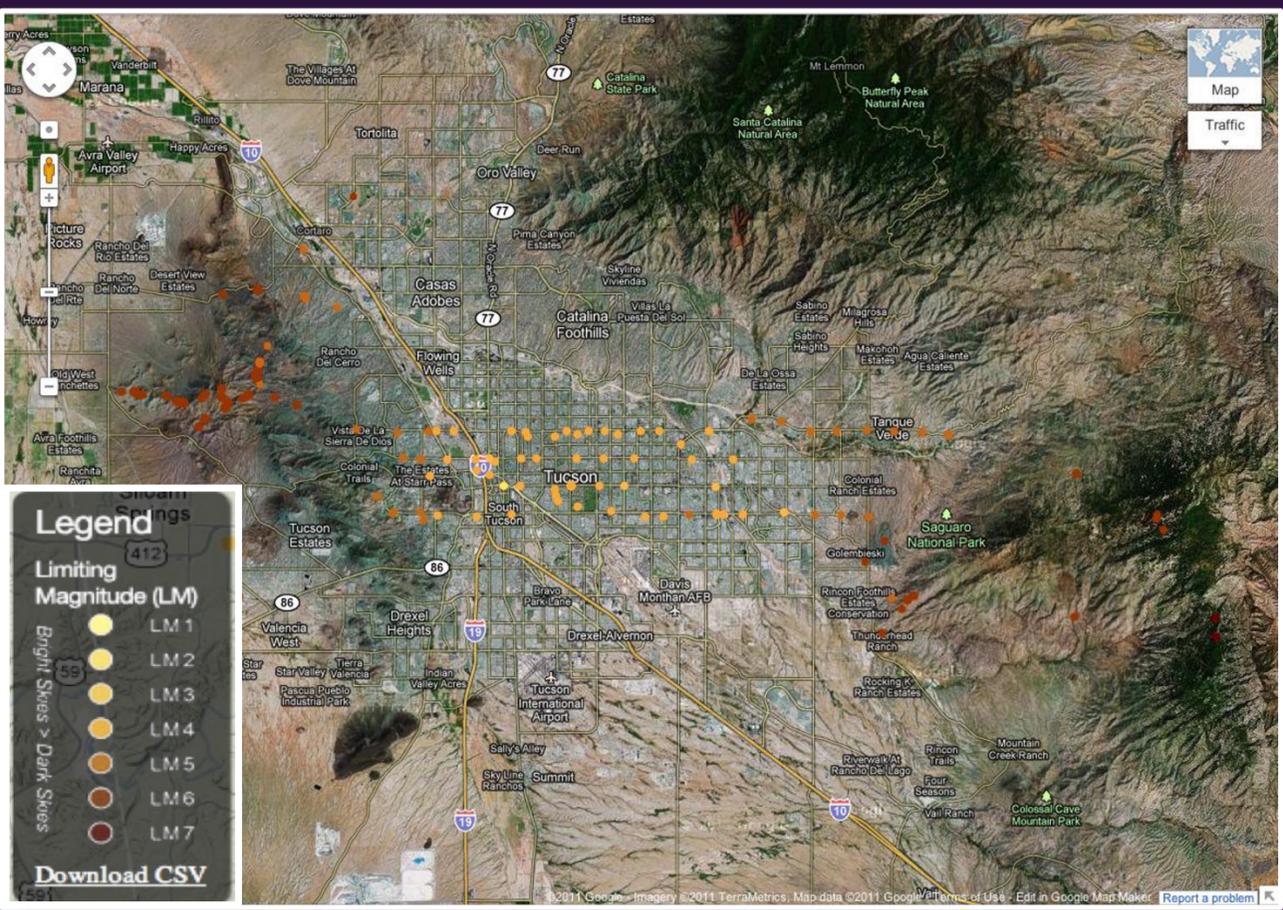
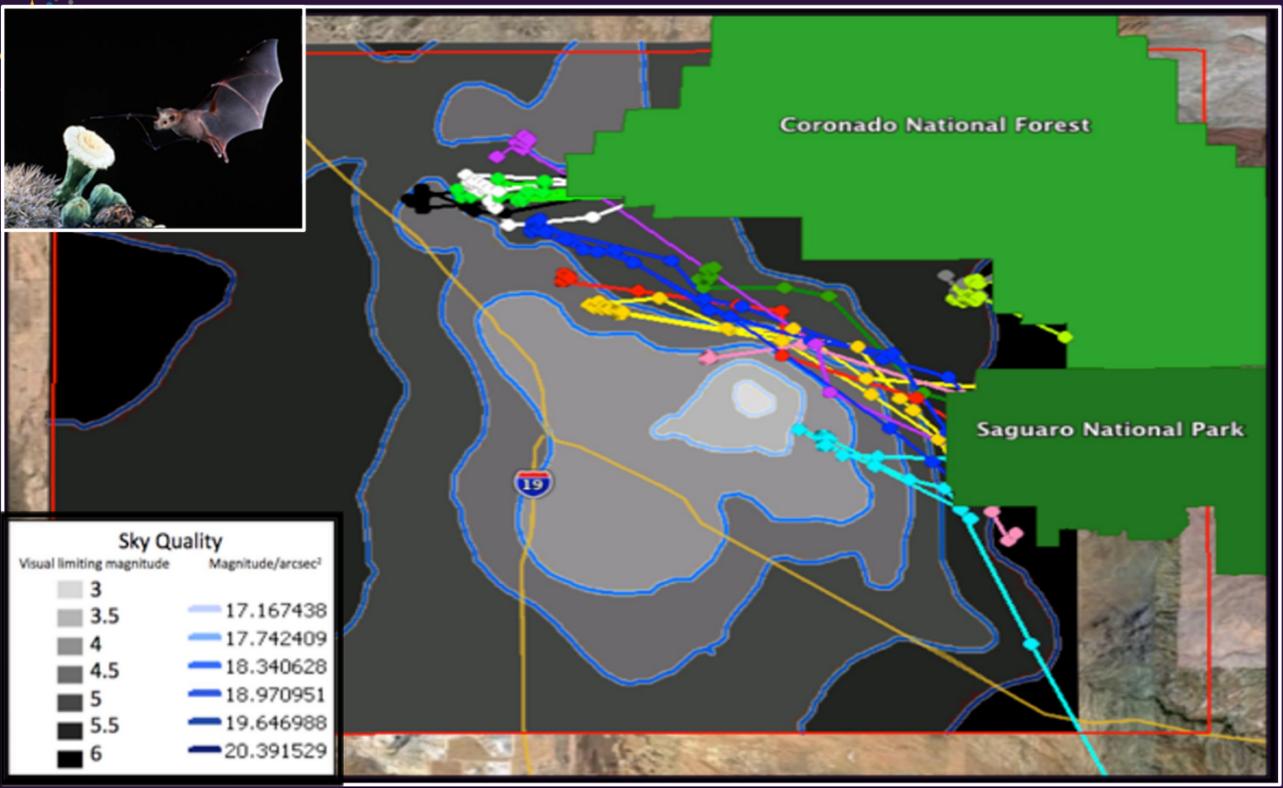




Globe at Night, the General Public & Tomorrow's Leaders

Undergraduates study the impact of city lights on lesser long-nosed bats using 3500 Globe at Night observations - why do they avoid city center?

Boy scouts, park rangers, the general public and amateur astronomers participate in taking Globe at Night observations across Tucson. How much brighter is city center than the national parks?



ASDA & Globe at Night break a world record!

- Using Globe at Night, Australians broke the Guinness Book of World Record for the most users to take an online environmental sustainability lesson in 24 hours.
- As part of the lesson, on June 21, the longest night of the year in the Southern Hemisphere, they submitted 6700 Globe at Night measurements.

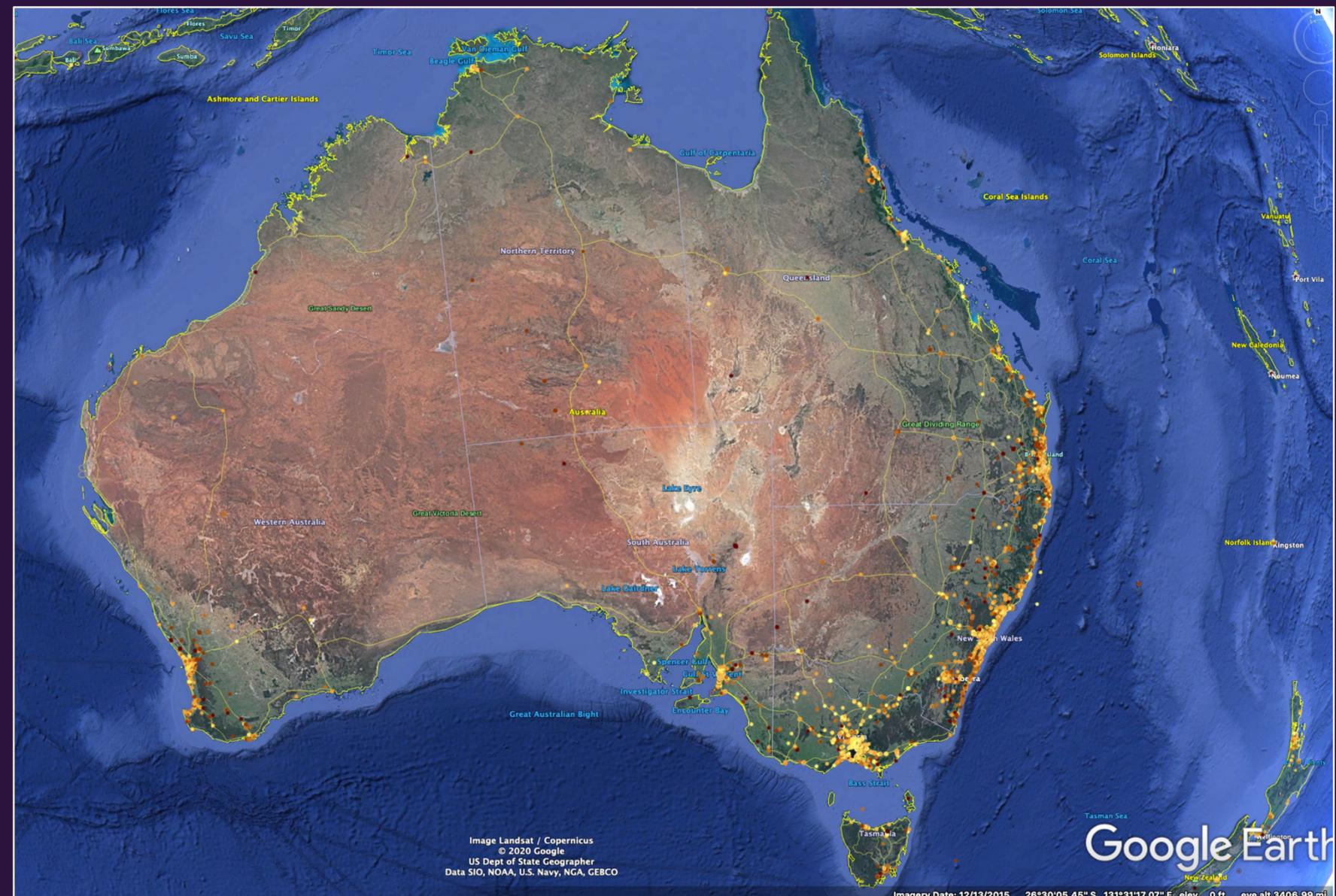
WE DID IT!

#WorldRecordLight
Sun 21 Jun 20
The darkest day of year...

Help us map light pollution & **BREAK A WORLD RECORD!**
worldrecordlight.thinkific.com

ASDA
AUSTRALASIAN DARK SKY ALLIANCE

SUPPORTED BY
Australian Government
Department of Agriculture, Water and the Environment



Globe at Night data discovers a large increase in light pollution worldwide



Use your phone's camera to scan this code and access the report.

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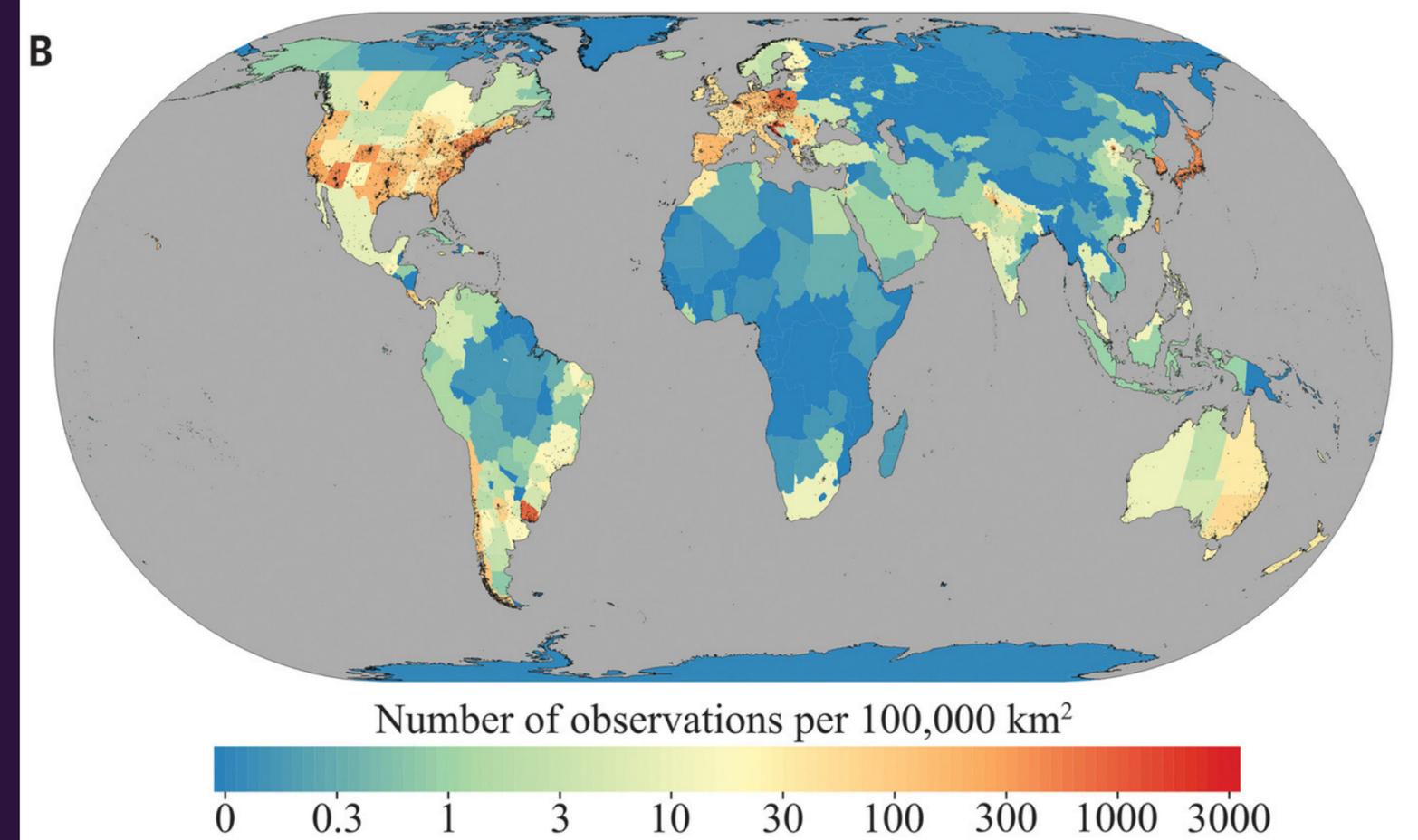
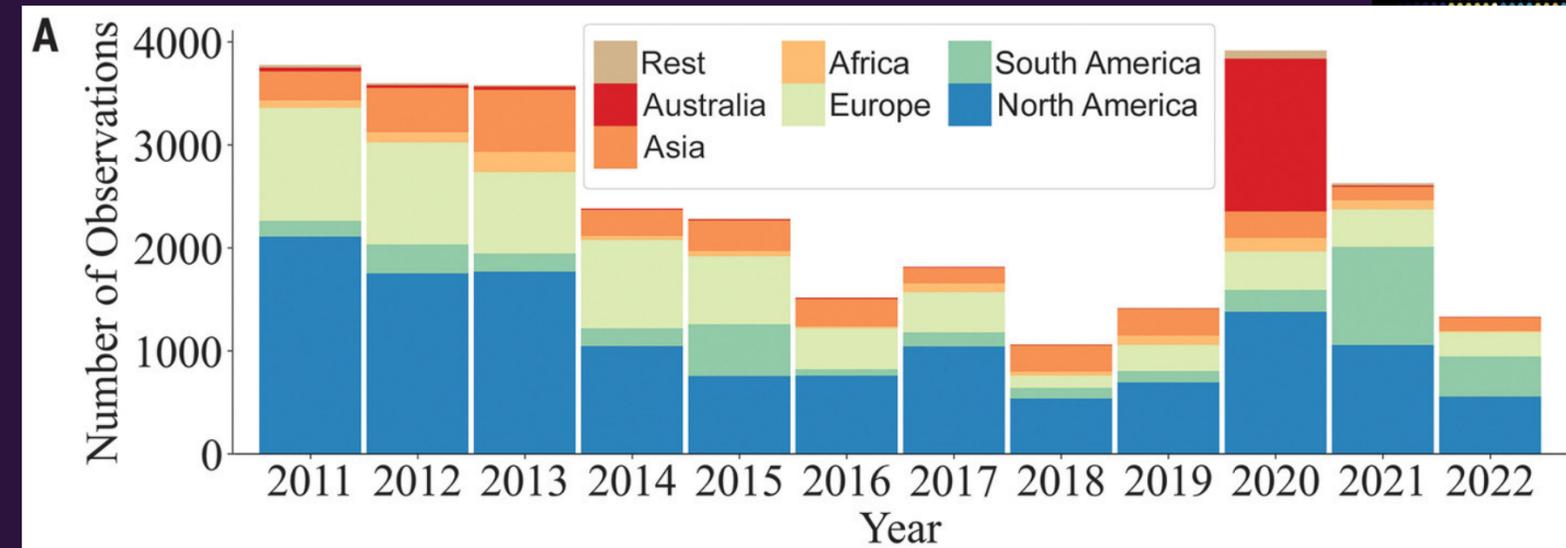
- We investigated the change in sky brightness over 12 years using 51,000 Globe at Night observations of the visibility of stars from citizen scientists worldwide.
- The number of stars decreased by an amount explained by a 10% rise in light pollution each year worldwide.
- C.C.M. Kyba, Y. Ö. Altıntaş, C.E. Walker & M. Newhouse, *Science* 379, 265 (2023)

Citizen Scientists are vital in providing data from across the world & from every year

A. Number of observations from every year subdivided by continent.

B. Spatial distribution of all years combined. Colors indicate participation normalized by land area. Some of the largest countries have been divided into smaller jurisdictions.

RESULTS ARE ONLY AS RELIABLE AS THE THOROUGHNESS OF THE DATA.



JOIN US at app.globeatnight.org

Globe at Night Campaign Dates for 2025

Globe at Night 2025
WWW.GLOBEATNIGHT.ORG
 ¡Sal y observa el cielo nocturno!
 Compromete a personas de todo el mundo a observar el cielo nocturno.
 Alienta a los estudiantes y familias a participar de la ciencia ciudadana, aprendiendo de forma práctica.
 Reúne información de la contaminación lumínica desde una perspectiva mundial para monitorear el brillo en los cielos y sus efectos.
 ¿Puedes ver las estrellas?

21 – 30 de enero	16 – 25 de julio
19 – 28 de febrero	15 – 24 de agosto
21 – 30 de marzo	14 – 23 de septiembre
19 – 28 de abril	13 – 22 de octubre
18 – 27 de mayo	11 – 20 de noviembre
16 – 25 de junio	10 – 19 de diciembre



Globe at Night 2025
WWW.GLOBEATNIGHT.ORG
 Get Out and Observe the Night Sky!
 Engage people worldwide in observing the nighttime sky.
 Encourage students and families to participate in citizen-science with a hands-on learning activity.
 Gather light pollution data from an international perspective to monitor sky brightness and its effects.
 Can you see the stars?

January 21 – 30	July 16 – 25
February 19 – 28	August 15 – 24
March 21 – 30	September 14 – 23
April 19 – 28	October 13 – 22
May 18 – 27	November 11 – 20
June 16 – 25	December 10 – 19

- March 21-30
- April 19-28
- May 18-27
- June 16-25
- July 16-25
- August 15-24
- September 14-23
- October 13-22
- November 11-20
- December 10-19

DarkSky is a sponsor of Globe at Night.





Together, We Can Protect Our Starry Night Sky!

<https://www.globeatnight.org>

Thank you for your kind attention!
Happy to answer questions.

Email: connie.walker@noirlab.edu

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