

Today's Presenters



Betha Gutsche
On the WebJunction Team
2005-2023

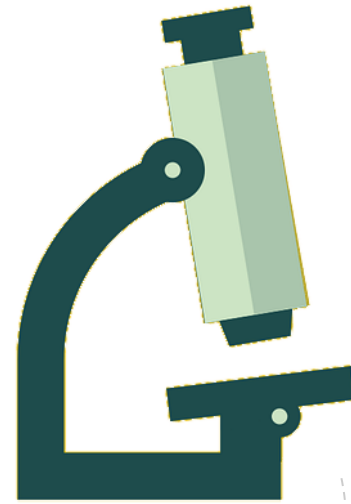
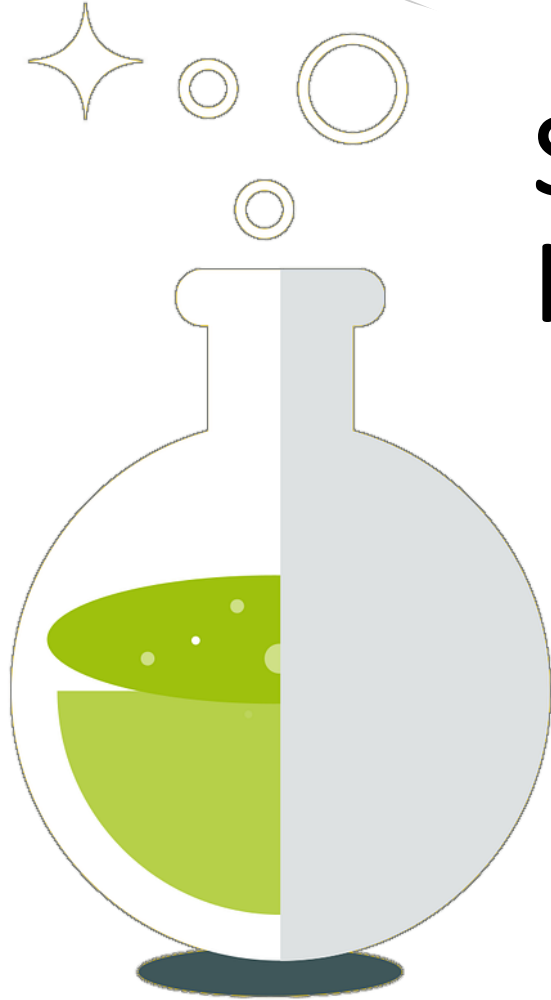


Ash Kunz
STEM Services Manager,
NCW Libraries (WA)



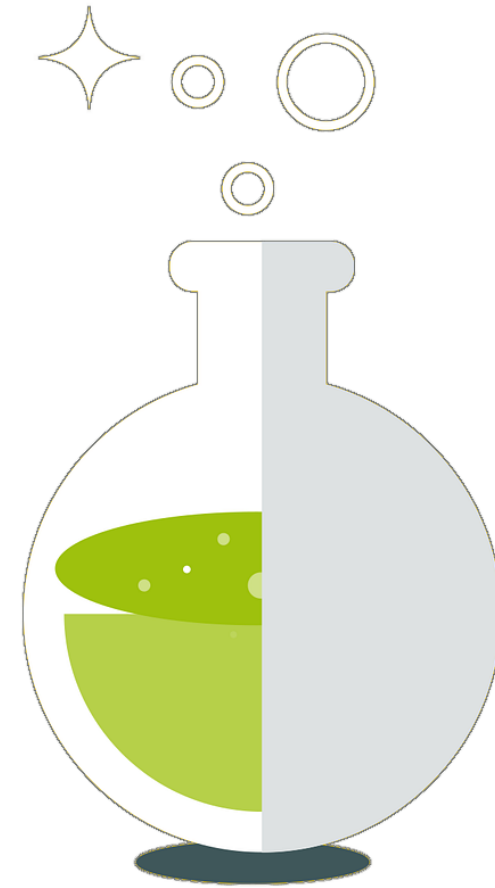
Vivienne Byrd
Librarian III, Exploration &
Creativity Department, Los
Angeles Public Library (CA)

Science Literacy: It's not just for kids



Topics for today

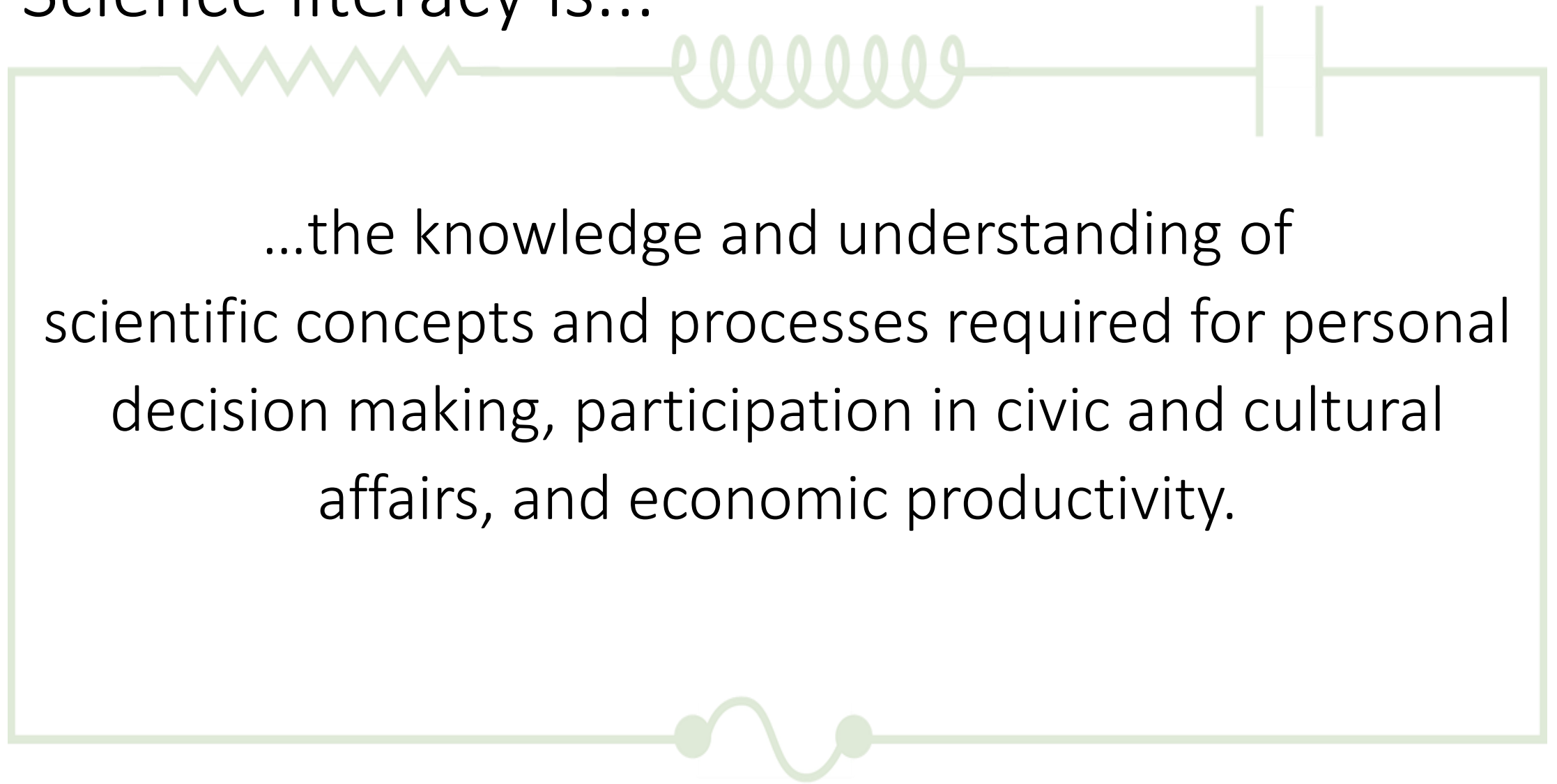
- What & why of science literacy for adults
- Hands-on play and fun
 - Beer 'n Bots – Ash Kunz
- Citizen science
 - BioBlitz – Vivienne Byrd
- Community science





What & Why of Science Literacy for Adults

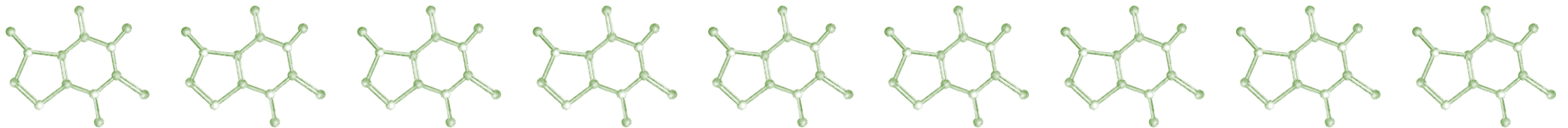
Science literacy is...



...the knowledge and understanding of scientific concepts and processes required for personal decision making, participation in civic and cultural affairs, and economic productivity.

Adults need science literacy to...

- Satisfy curiosity about the world.
- Ask, find, and determine answers about everyday experiences.
- Identify scientific issues underlying national and local decisions.
- Evaluate the validity of science articles in the popular press.
- Collect evidence and apply conclusions about issues that matter to their lives.




Adults-only programming



“In today’s world, adults need to nurture their own curiosity, creativity, and critical thinking skills as much as kids do.

Adult programming, designed just for them, keeps them actively engaged in figuring out how they like playing with science, developing a passion for it, and discovering science’s purpose in their lives.”

—Adrienne Testa, master teacher, and Troy Livingston, vice president for innovation and learning,
Museum of Life and Science, Durham, North Carolina



1 – Hands-on play and fun

- Stimulate scientific curiosity and make it fun





2 – Citizen science

- Promote interest in science research by engaging adults in community-based citizen science projects

A photograph of three people in a community setting. On the left, a man with dark hair and a beard, wearing sunglasses and a blue denim shirt, is looking towards the center. In the center, a woman with dark, curly hair, wearing a red button-down shirt, is looking towards the right. On the right, a woman with short dark hair, wearing glasses and a beige jacket over a white shirt, is looking towards the center. They are standing in front of a green hedge and a house in the background. A semi-transparent white box with a green number '3' is in the top right corner, and a semi-transparent white box with a green bullet point is in the bottom right corner.

3 – Community science

- Community members collaborate to conduct scientific research to advance what matters most to their communities



Beer 'n Bots – Hands-on Fun

Ash Kunz

STEM Services Manager

NCW Libraries (WA)

What and Why

STEM programming designed specifically for adult audiences

- Curiosity and play-based learning
- Hands-on
- Community engagement



Image courtesy of NCW Libraries





Image courtesy of NCW Libraries

Goals and Benefits

- Community buy-in
- Building a community of curious learners
- Access to STEM learning in rural communities
- Joy, fun and exploration opportunities



Images courtesy of NCW Libraries



Images courtesy of NCW Libraries



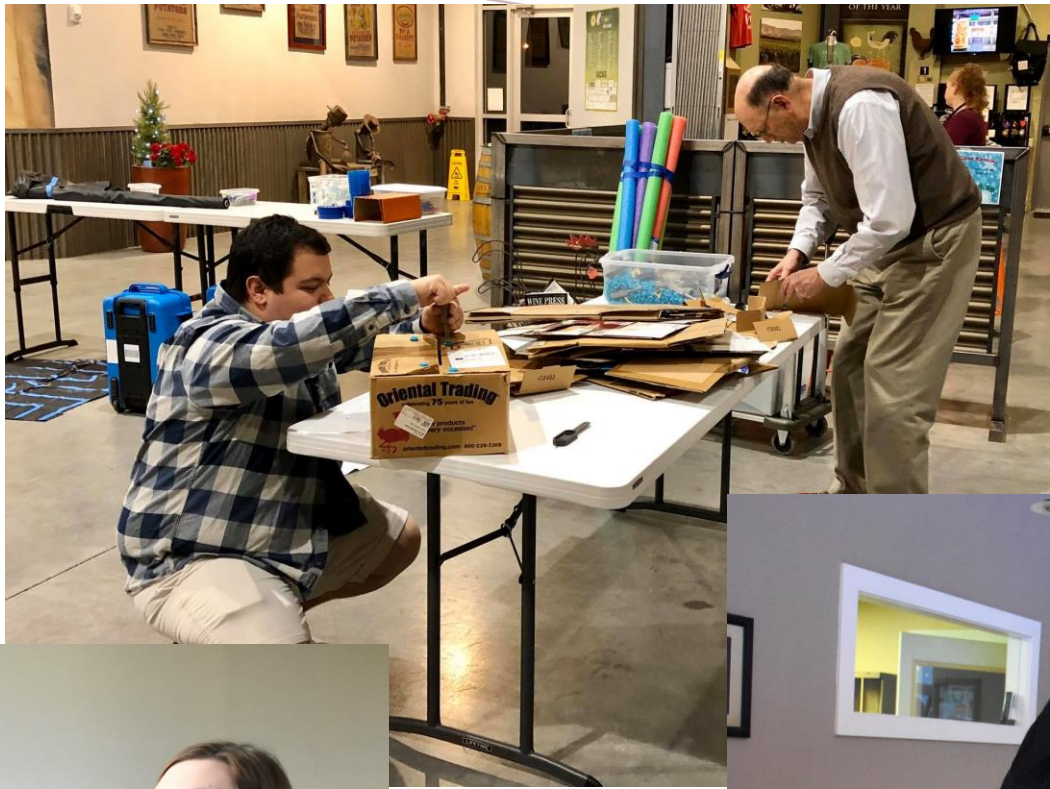
Lessons Learned

Challenges

- Choosing the right space
- Choosing the right activities

Successes

- Outcomes and impact



Images courtesy of NCW Libraries



BioBlitz – Citizen Science

Vivienne Byrd

Librarian III, Exploration & Creativity Department

Los Angeles Public Library (CA)

Neighborhood Science

Harness the power of science for your neighborhood



LOS ANGELES PUBLIC LIBRARY

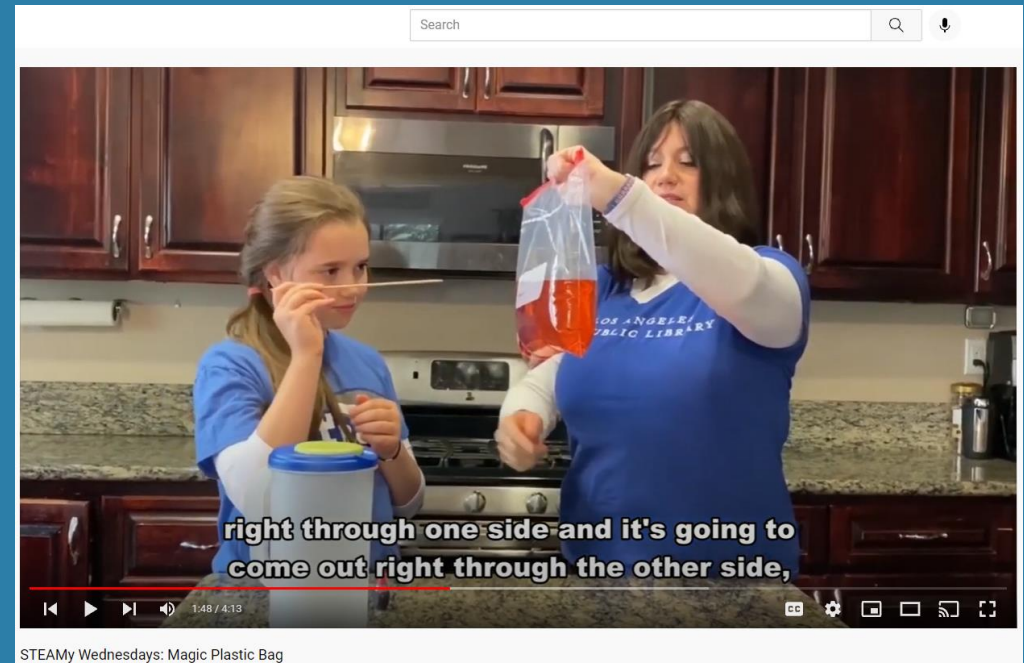


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WHAT IS NEIGHBORHOOD SCIENCE @LAPL?

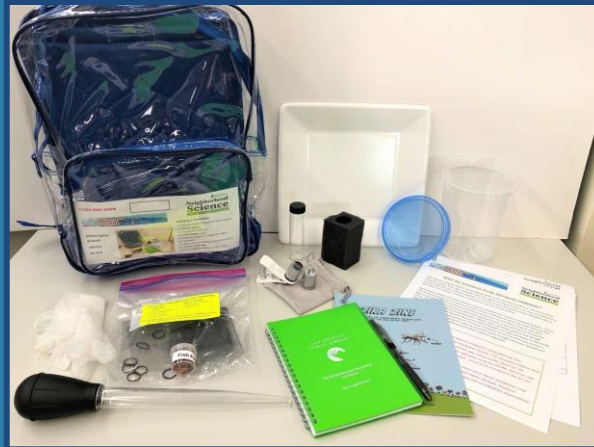
WHO ARE WE TARGETING?





DIY NEISCI CIRCULATION KITS

<https://lapl.org/neisci/kits>





L.A. BioBlitz Challenge

Explore • Observe • Connect

June 7 to August 7

Photo credits: Nurit Katz, Daniel S. Cooper & Kyle Nessen.

<https://lapl.org/bioblitz>



LA BioBlitz Challenge

Explore • Observe • Connect

September 1-30



Observe & Photograph Wildlife

Check off and note the indicator species you find.

Acorn woodpecker

Baja California tree frog

Behr's metalmark

Black-bellied slender salamander

Bobcat

Bramble green hairstreak

Bumblebees

California kingsnake

California quail

California wild rose

Canyon wren

Cinnamon teal

Coachwhip snake

Common side-blotched lizard

Dusky footed woodrat

El Segundo blue butterfly

Gopher snake

Gray fox

Great blue heron

Great horned owl

Greater roadrunner

Harvester ants

Hooded merganser

Lorquin's admiral

Monarch butterflies

Mule deer

North American Jerusalem crickets

Northern harrier

Red-tailed hawk

Red-winged blackbird

Sara orangetip

Spotted towhee

Toyon

Velvet ants

Western bluebird

Western meadowlark

Western pond turtle

Western toad

Other species observed: _____

labioblitz

September 4, 2022

lapubliclibrary

Following

198 likes

lapubliclibrary Get out and explore nature.

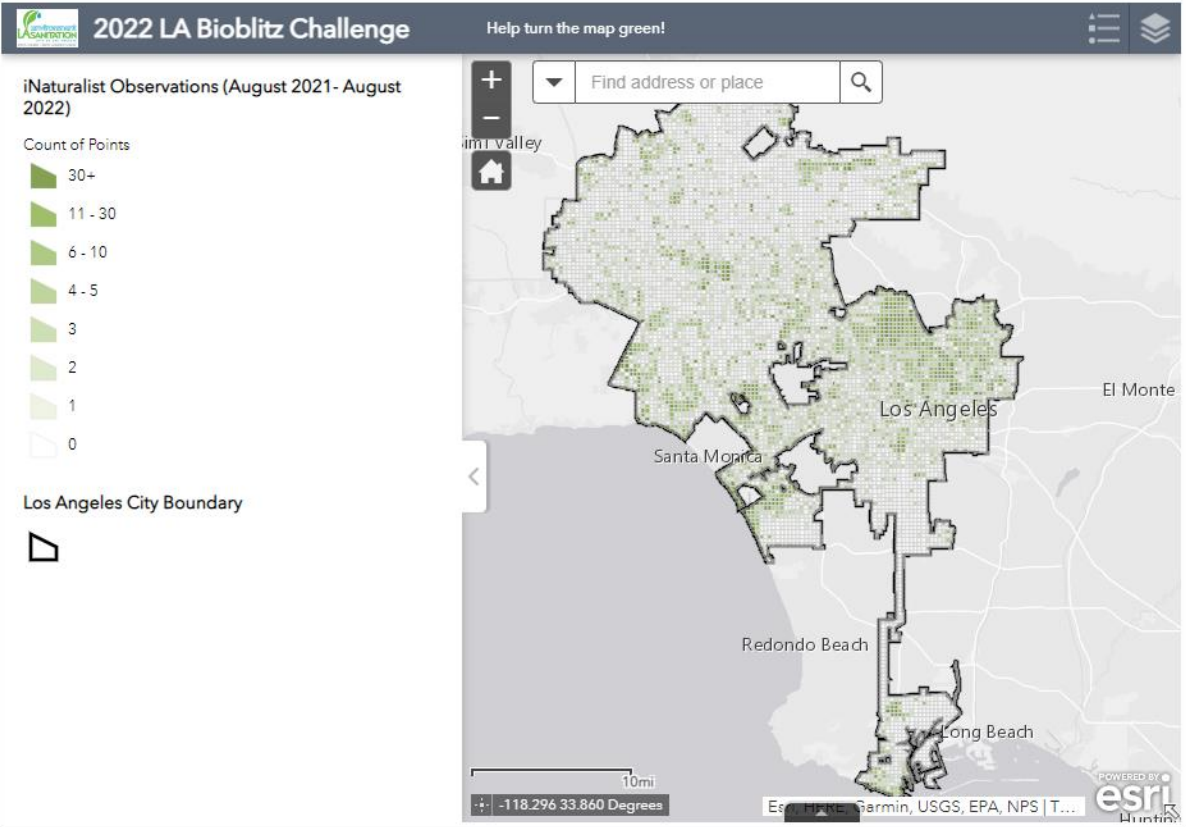
#LABioBlitz challenge to photograph and... more

August 5, 2021

© Los Angeles Public Library

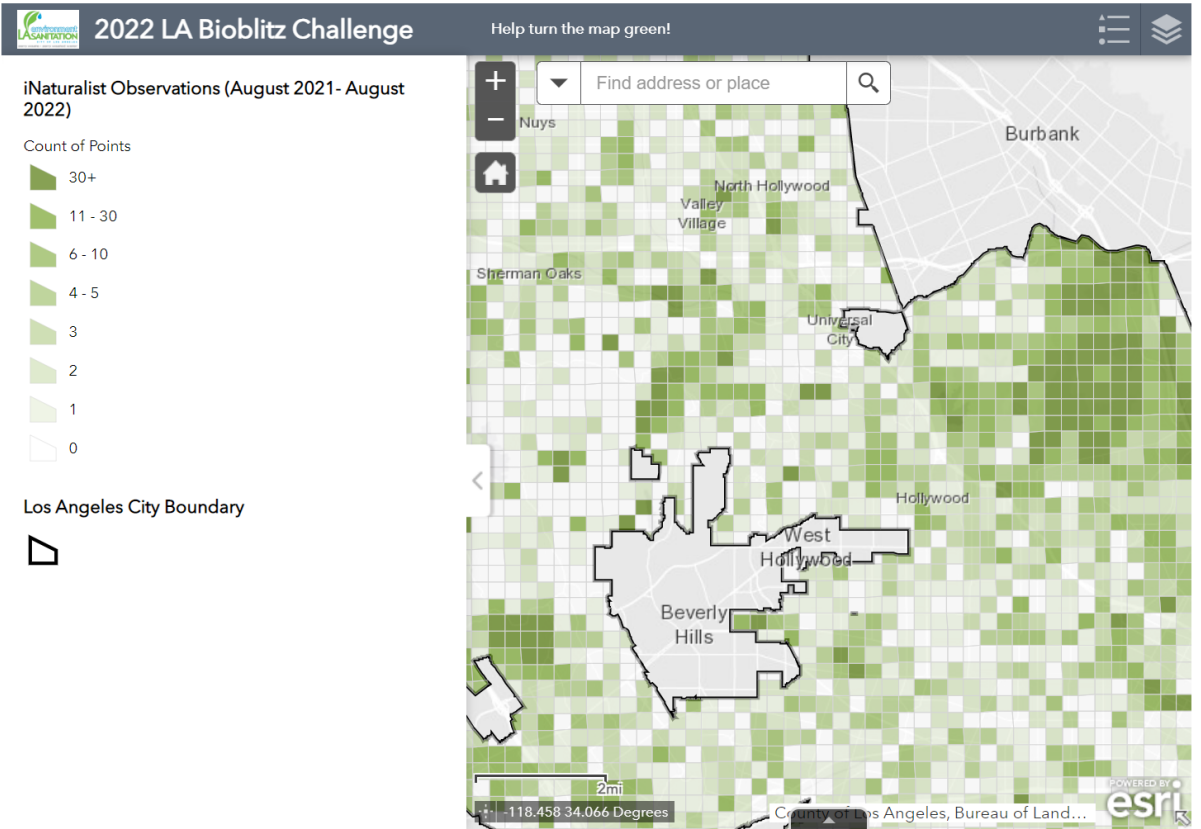
Turn the Map Green

The heat map shows **observation *hot spots* in green**, and cold spots in white. Help turn the entire map green by uploading observations in data cold spots to iNaturalist.



Turn the Map Green

The heat map shows **observation *hot spots* in green**, and cold spots in white. Help turn the entire map green by uploading observations in data cold spots to iNaturalist.



iNaturalist Search Explore Your Observations Community Identify More Upload 0

L.A. BioBlitz Challenge

L.A. BioBlitz Challenge 2021
JUN 7, 2021 – AUG 7, 2021
LOS ANGELES PUBLIC LIBRARY
environment LASANITATION

About Leave 144
Join the L.A. BioBlitz Challenge this summer! Join this exciting effort led by LA Public Library's Neighborhood Science Program and LA Sanitation & Environment's Biodiversity Program, to document the wild plants and animals you see in your neighborhood!
Read More > Your Membership
Edit Project Project Journal

Overview 14,907 OBSERVATIONS 1,810 SPECIES 1,398 IDENTIFIERS 1,907 OBSERVERS Stats

Recent Observations View All



LA BioBlitz Challenge

LA BioBlitz Challenge 2022
SEP 1, 2022 – SEP 30, 2022
LOS ANGELES PUBLIC LIBRARY
environment LASANITATION

About Leave 133
Join us for the second annual LA BioBlitz Challenge this September! Join this exciting effort led by LA Public Library's Neighborhood Science Program and LA Sanitation & Environment's Biodiversity Program, to document the wild plants and animals you see in your neighborhood!
Read More > Your Membership
Edit Project Project Journal

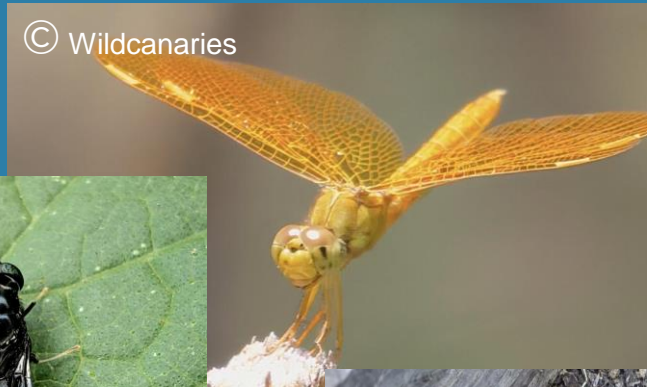
Overview 8,387 OBSERVATIONS 1,378 SPECIES 990 IDENTIFIERS 1,098 OBSERVERS Stats

Recent Observations View All



©jackson_henning

© Wildcanaries



© Ariela12



©marisalikesbirds



© b199

©freemont7



©sebas1029



©ericbursch



©megastarnature



©jonahuntley



©brookehenry



©timothywaters



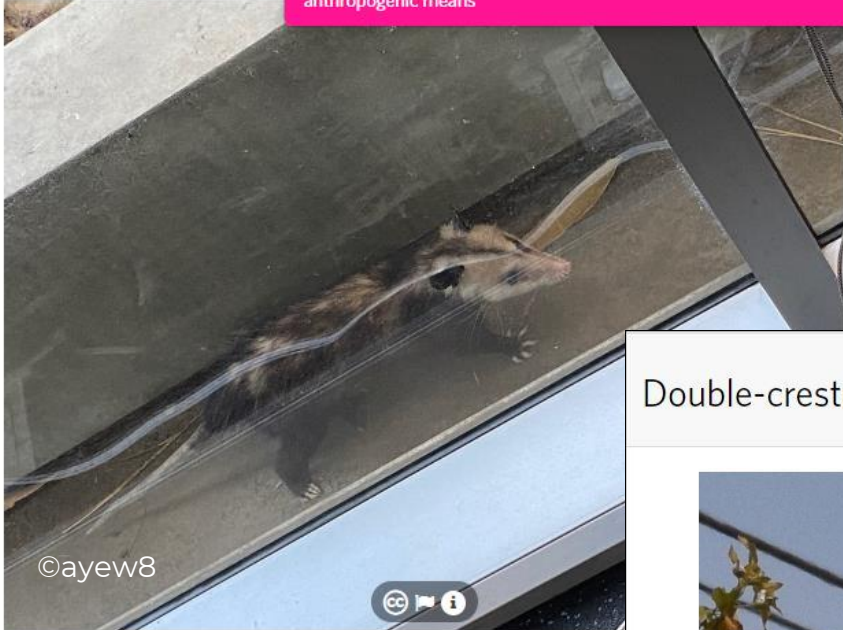
©derek_hemeister

Virginia Opossum (*Didelphis virginiana*)



Research Grade

Introduced in Los Angeles County, US, CA: arrived in the region via anthropogenic means



Fountain Grass (*Cenchrus setaceus*)



Needs ID

Introduced in Los Angeles County, US, CA: arrived in the region via anthropogenic means

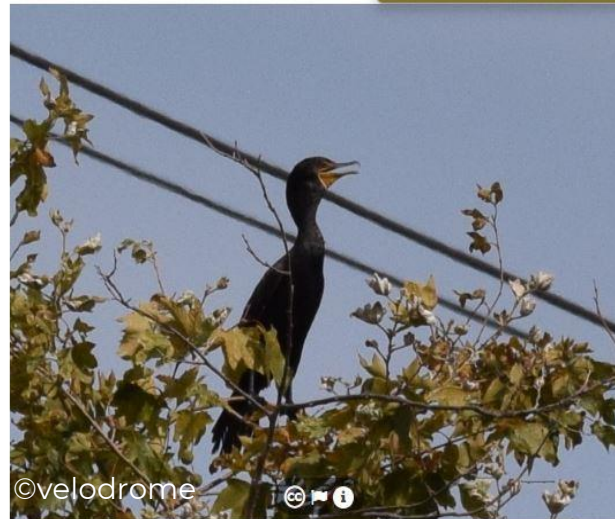


Double-crested Cormorant (*Phalacrocorax auritus*)



Research Grade

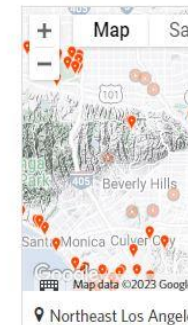
Conservation Status: vulnerable (S3) in California, US (NatureServe)



velodrome

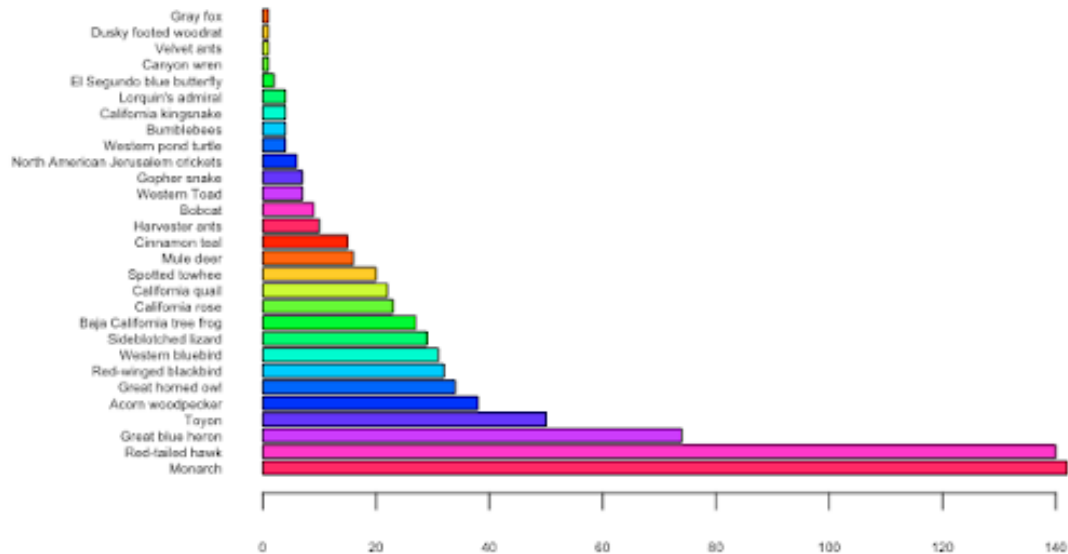
7,993 observations

Observed:
Jul 24, 2021 - 3:49 PM PDT





L.A. Bioblitz Challenge Indicator Species Observations



LA BIODIVERSITY INDEX BASELINE REPORT

2022

© LASAN



Testimonials:

Dear Ms Byrd: Good afternoon. I hope this email finds that you and your family at home and at the library are safe and healthy ! I have loved loved participating in your neighborhood Science series - I have been and inspired and empowered to have our lausd students engage with real science !"

-- Gloria A. on attending NeiSci Tuesdays from March to May 2021

"Hey Vivienne, Great program. I LOVE that we'll have monitors at Eagle Rock--I have asthma & had a hard time w/it last year w/the wildfires. Plus I'm interested in improving indoor air quality, too--anything that helps." - Liz C. on attending NeiSci Prog on Air Quality Monitoring

"Thanks a lot Vivienne, I want to congratulate your team because every Tuesday the presentations are amazing, very inspiring and interesting topics." - Nancy P. on attending NeiSci Tuesdays series Spring 2021.

"Thank you! This [BioBlitz] project is the first fun thing I've done since the pandemic."
- Rachel H. on participating in 2022 LA BioBlitz Challenge



Community Science – Taking it Further

3 – Community science

- Community members collaborate to conduct scientific research to advance what matters most to their communities

ASTC Community Science Framework

Attributes

- Centers community priorities
- Respects community strengths
- Shares leadership
- Is equity focused
- Aims for action



Dialog
Model

Outcomes

- Strong community partnerships
- Increased science agency
- Impactful science research
- Ethical decision-making
- Inspiration for new science
- Capacity for civic engagement
- Sustainable solutions for society

Community discovery

- Coming with empathy
- Seeking to understand, not to influence or sway
- Empowering community members to take the lead
- Facilitating partnerships and actions



Partnership with scientists is key



Connect with scientists and organizations that can:

- Communicate effectively with non-scientists
- Honor local knowledge and lived experience

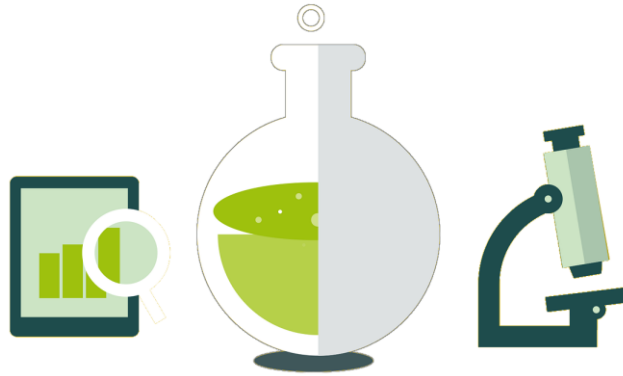


Participatory research; screenshot from ASTC Community Science video
<https://communityscience.astc.org/framework/>

What are you inspired to do?



QUESTIONS?



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