LA COUNTY LIBRARY

DIY Library Program

CITIZEN SCIENCE:
CONTRIBUTE TO LA'S NATURE STUDY

Recommended for Ages 12 – 18

Did you know that there are many species of insects in our own backyards that haven't been identified by scientists? That's why the Natural History Museum of Los Angeles County created the Citizen (or Community) Science Project via iNaturalist. Intended for anyone in Los Angeles, participants explore their backyard or neighborhood and discover new plants and animals. When you upload your observations to iNaturalist, you contribute to the advancement of biodiversity science in Los Angeles. You'll find that you're much more observant about your surroundings now that you have a taxonomy job to do!

Definitions:

- **Taxonomy** – the science of identifying, naming, describing, and classifying life forms. (UXL Encyclopedia of Science, 2015)
- **Flora** – plants or life especially of a region, period, or environment. (Britannica dictionary accessed April 8, 2020)
- **Fauna** – animals or animal life especially of a region, period, or environment. (Britannica dictionary accessed April 8, 2020)
- **iNaturalist** – a joint initiative of the California Academy of Sciences and the National Geographic Society built on the concept of mapping and sharing observations of biodiversity across the globe.

How it works:

- Observers snap a picture of flora or fauna in Los Angeles County and upload it to iNaturalist (via web or app).
- Other iNaturalist users, including scientists, help correctly identify the plant or animal you observed.
- The observation is mapped and shared with people around the world and visitors of The Nature Lab at the Natural History Museum of Los Angeles County via interactive displays and stations to see which species have been observed in the area.

Questions:

- Have you ever seen plants or animals in nature that you couldn't identify? What did you do to find out what it was?
- Think about the benefits of being able to correctly identify plants and animals. How does it help you? How will it help scientists?

ACTIVITY

Materials:

- Smartphone
- Wifi or other Internet connection

On your smartphone, connect to the Internet and go to your app store (Google Play or the Apple Store). Search 'iNaturalist' and download the app for free. The symbol looks like this:

Once you have the app, open it up and join one (or all) of these LA-based Projects:

- LA Nature Map (flora or fauna observed in the Greater Los Angeles area, including Channel Islands)
- RASCals (Reptiles and Amphibians of Southern California)
- SLIME (Snails and Slugs Living in Metropolitan Environments)
- Southern California Squirrel Survey

Your phone will automatically detect your location, which helps place the nature you observe in a map that can be seen by others. If you are concerned about sharing sensitive data with the public, you can set your geoprivacy setting from "public" to "obscured".

Once you've explored iNaturalist, take a walk in your backyard or neighborhood and snap a picture of something simple, like a flower, to upload. You can also use the camera function right in the app.

As you upload your picture to the app or website, you will need to help fill in some basic information about it to better help identify the flora or fauna.

- What Did You See? Click on the button to view suggestions. The computer doesn't always get it right, but if you have some idea (i.e. you know it's a 'rose'), type that in the search box and click on the image that most closely matches your observation. It's best to start general and let the community decide on a more specific ID.

- Notes (Optional). Type any interesting observations, like "Unusual to see a rose blooming so early in the year."
- Location. Automatically populates with either specific coordinates, or a general area, depending on your privacy settings.
- Captive/Cultivated. Select this if the observation is an organism that exists in the time and place it was observed because humans intended it to be then and there, like animals observed in a zoo or flowers planted in a flowerbed. These species are not in their natural habitats.
- Add to Project(s). Click on the appropriate project. L.A. Nature Map is always a good one, but if it's a slug, add it to SLIME, too.

Sit back and keep checking the site for other users to add their comments or provide another ID. You will be able to agree/disagree with their ID, and many people may join in the conversation. The more IDs that are made, the more useful the observation becomes for science.

Tips to getting good identifications:

- Take multiple pictures from different angles.
- Try zooming in on the plant you want to identify and leave other plants out of the frame, or place your hand behind the plant.
- Remember to maintain a safe distance from animals and to use your camera's zoom function. Observers can gather a lot of information from even faraway photos of animals.

After making your observations outside, think about these questions.

- What new plant or animal did you discover when you went outside?
- Were you surprised by the amount of living organisms within your urban community? Why or why not?

Nature exists, even in metropolitan settings. Los Angeles is one of the most biodiverse ecosystems in the world, and thanks to community scientists like you, more species will be identified and monitored.

Recap:

1. We can all do our part in keeping track of plants and animals in Los Angeles.

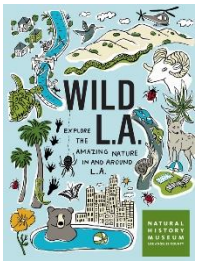
2. If you don't know what kind of plant or animal you're looking at, upload it to iNaturalist, and someone will be able to help.

3. The more you look for wildlife around you, the more you'll find it in the unlikeliest of places. So get out there and discover!

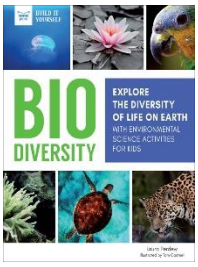
DIGITAL RESOURCES AVAILABLE THROUGH LA COUNTY LIBRARY

eBooks & Audiobooks

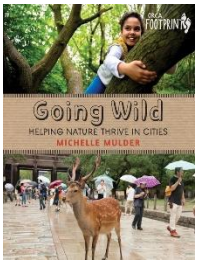
LA County Library offers numerous resources that can help you learn more about Citizen/Community Science. Here are just a few, all of which are available as eBooks on OverDrive and Libby:



Wild LA **by Natural History Museum of Los Angeles County**
Discover some of the different species that inhabit Los Angeles, from the easy-to-spot, to the more elusive. Suggested hikes and walks will get you started on your quest for finding plants and animals to identify.



Biodiversity **by Laura Perdew**
Millions of different species exist on earth, and all do their part in keeping the planet in balance. Read about the current threats to this biodiversity and what you can do to help. Also, try out the hands-on STEM activities featured.



Going Wild **by Michelle Mulder**
Man has worked hard to keep animals out of cities in order to civilize, but with increasing problems such as pollution and climate change, it might be time to reintroduce them.

Databases

- *Animal Life Encyclopedia*. Grzimek's *Animal Life Encyclopedia* is noted for contributions by prominent members of the scientific community.
- *Britannica School*. This student edition offers thousands of up-to-date, curated, and curriculum-relevant articles, images, videos, audio clips, primary sources, maps, research tools, and recommended websites covers many subjects, including biodiversity.

ONLINE RESOURCES

- iNaturalist – https://www.inaturalist.org/
  A citizen science project and online social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe.