DENVER-BOULDER,
COLORADO

CITY NATURE CHALLENGE

April 24 - May 3, 2020

What we'll go over

- Background on the CNC
- COVID-19
- The Denver-Boulder CNC
- Who can participate?
- What should you document?
- How do I know my observations were added?
- Using iNaturalist
- Identifying species
- How to take good photos
- Being safe / keeping wildlife safe
- Resources teachers & parents
- Additional information

What's the City Nature Challenge?

CITY NATURE CHALLENGE IS ORGANIZED BY

CALIFORNIA ACADEMY OF SCIENCES

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

The City Nature Challenge (CNC) is an ongoing project to document urban biodiversity & engage city residents in the nature around them through the iNaturalist online platform.

The project is framed as a competition* (see the COVID-19 slide) between cities to see which can make the most observations, identify the most species, or have the most participants.

The program was started in 2016 by the Natural History Museum of Los Angeles and the California Academy of Sciences.

When is the City Nature Challenge?

APRIL 24 - 27, 2020

Four-day bioblitz throughout the Denver-Boulder Metro Area when all observations are collected.

APRIL 28 - MAY 3, 2020

Six-day identification period where observations are ID'd and verified. Participants can continue to upload observations to this period (so long as they were taken within the April 24-27 timeframe).

MAY 4, 2020

Results will be announced for each city's total observations, number of species ID'd, and number of people who participated as observers and identifiers.

Why should you participate?

Photo: Melanie Hill

There is nature all around us, even in our cities!

Knowing what species are in our city and where they are helps us study and protect them, but the ONLY way to do that is by all of us – scientists, land managers, and the community – working together to find and document the nature in our area.

By participating in the City Nature Challenge, not only do you learn more about your local nature, but you can also make your city a better place – for you and other species!

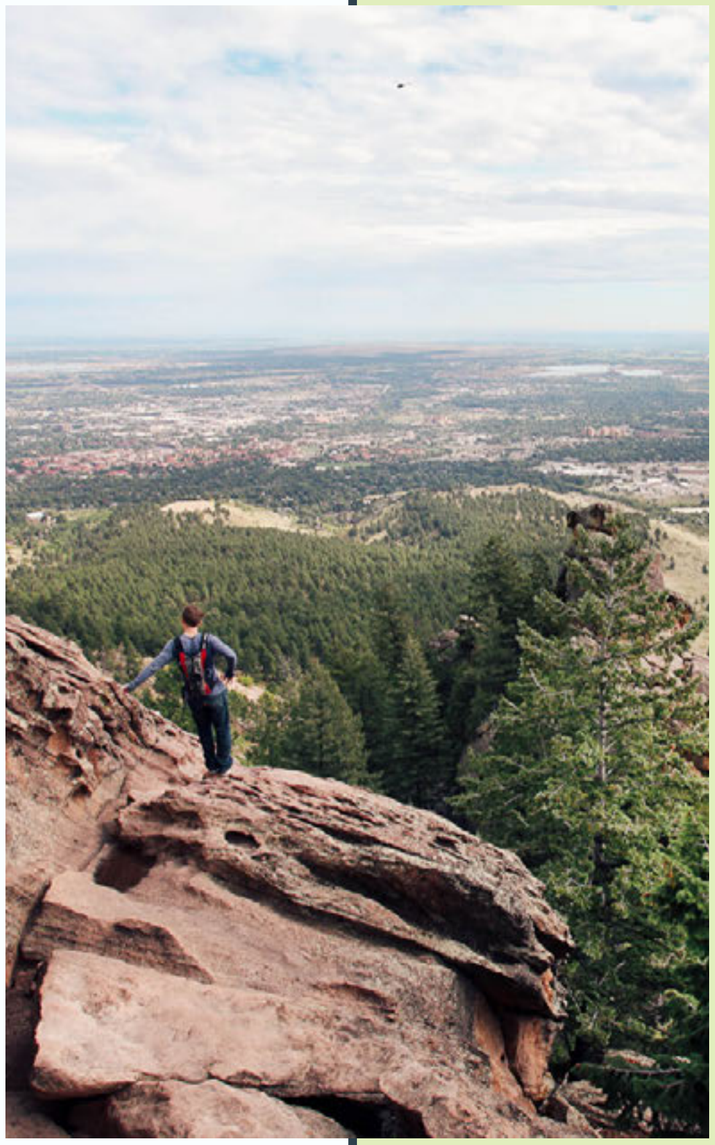


Photo: Melanie Hill

COVID-19 Update

In light of the COVID-19 pandemic, CNC organizers have made some modifications to the 2020 City Nature Challenge to help keep organizers & participants safe.

Firstly, this year's CNC is no longer a competition. Instead, we want to embrace the healing power of nature and encourage the collaborative aspect of the CNC. This will allow people to safely document biodiversity in whatever way they can, even from the safety of their own homes if necessary. We urge all participants to carefully follow public health guidelines provided by your local governments, as they are changing in real-time.

For more information on the CNC and COVID-19, visit citynaturechallenge.org/covid19/.

Governor Jarod Polis. Photo courtesy of the Durango Herald

Embrace the healing power of nature with the City Nature Challenge

GOVERNOR JARED POLIS

"Outdoor recreation is a great thing to do during this time while social distancing from others."
– Gov. Polis

"Our mountains, our trails, our beautiful rivers, they're going to be there," Gov. Polis said. "Let's take a few weeks and not visit some of these areas and just recreate in our neighborhoods.".

© Karsh Hagan

Enjoying wild nature during COVID-19

- Enjoy the outdoors regionally, around your backyard, neighborhood, and local park or trails. *Please stay close to home*!
- Maintain social distance from people (6 ft), and wildlife (at least 75-150 ft from large animals).
- Avoid times and places of high use.
- Respect local land and facility closures.
- Wear a cloth mask in public areas.
- Practice good hand hygiene.
- Announce your presence to others to help maintain social distancing.

Photo: Scott Dressel-Martin

Get involved with the

Denver-Boulder City Nature Challenge

BY THE NUMBERS: 2019 STATS

DENVER-BOULDER, COLORADO

62,111
OBSERVATIONS MADE

970
SPECIES DOCUMENTED

406
PEOPLE PARTICIPATED

963,773
OBSERVATIONS MADE

31,000+
SPECIES DOCUMENTED

35,126
PEOPLE PARTICIPATED

159 CITIES WORLDWIDE

Icons courtesy of citynaturechallenge.org

Denver-Boulder CNC Organizers

COLORADO PARKS • WILDLIFE

DENVER AUDUBON

DENVER BOTANIC GARDENS

MetroDNA
METRO DENVER NATURE ALLIANCE

The Nature Conservancy

WILD FOUNDATION

Photo: Melanie Hill

Event & Outreach Partners

- Americas for Conservation
- Bird Conservancy of the Rockies
- Bluff Lake Nature Center
- Boulder County Parks & Open Space
- Butterfly Pavilion
- City of Aurora Open Space & Natural Resources
- City of Boulder Open Space & Mountain Parks
- City of Lafayette Parks, Recreation & Open Space
- City of Louisville Open Space Division
- High Line Canal Conservancy
- Majestic View Nature Center
- Regis University
- University of Colorado Boulder

Denver-Boulder Boundary

The Denver-Boulder Metropolitan Area City Nature Challenge encompasses Adams, Arapahoe, Boulder, Broomfield, Denver, Douglas, and Jefferson Counties.

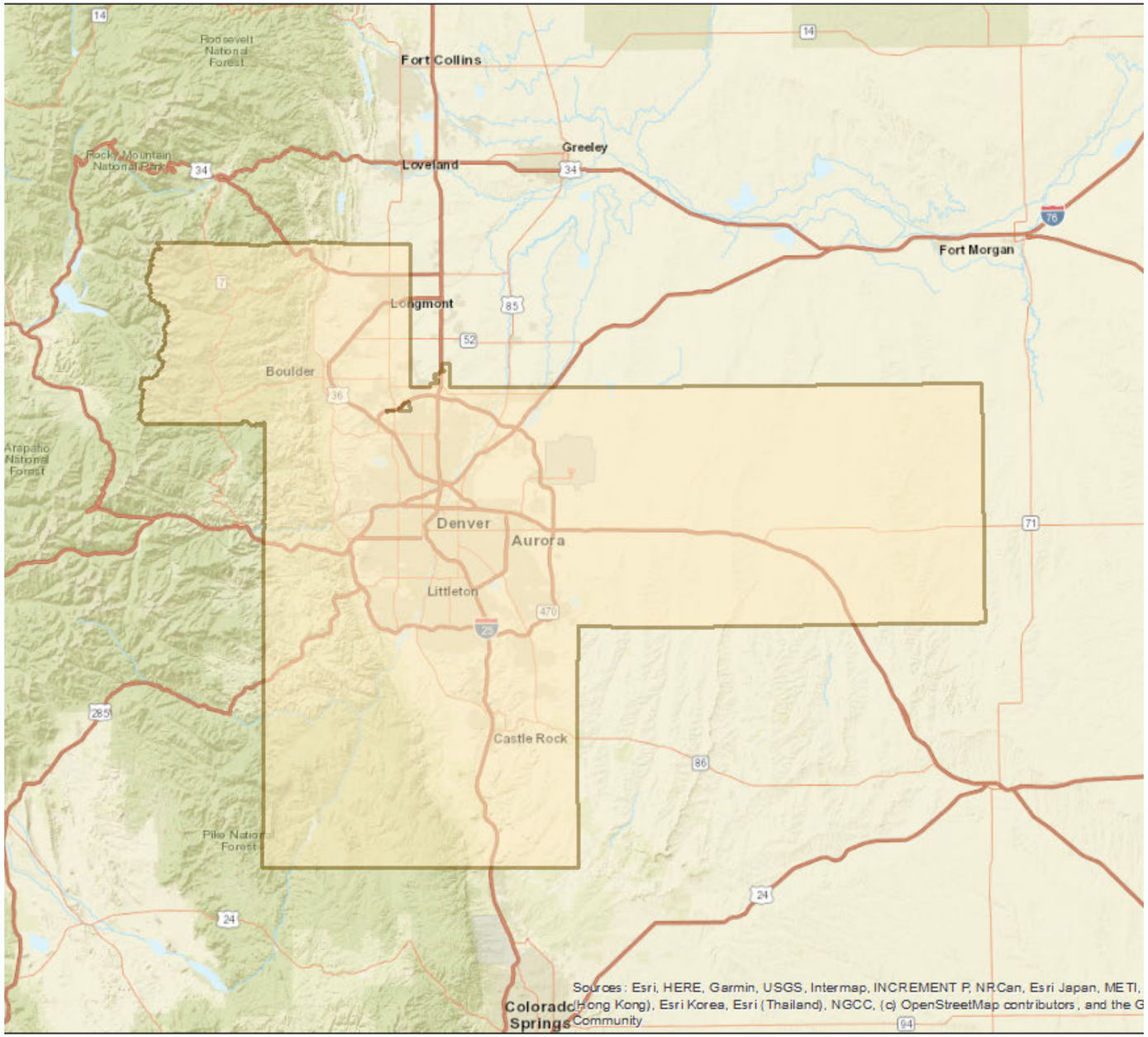


Photo: Melanie Hill

Where can you go to make observations?

In short: Anywhere wild nature exists!

However, in light of the COVID-19 pandemic, we urge all participants to carefully follow public health guidelines & stay at home orders provided by local governments.

Document wild nature in nearby places such as:

- Your backyard!
- City/neighborhood parks
- Open space, mountain parks, & natural areas
- State parks
- Urban areas
- And more!

Please check the status of all parks and open spaces before visiting

Photo: Melanie Hill

Who can participate?

Anyone in the Denver-Boulder Metro Region!

You don't have to be a professional photographer, naturalist, biologist, etc. to get involved with iNaturalist or the City Nature Challenge. All you need is a way to take photos of plants and wildlife, an iNaturalist account, and the desire to get out into wild nature! Our team and the iNaturalist community will help you with troubleshooting, photo tips, and species identifications.

Which species should you document?

ANY WILD ORGANISMS

Birds

Fish

Reptiles

Amphibians

Mammals

Fungi & lichens

Plants

Pets

Humans

Potted plants

Zoo animals

CAPTIVE, NON-WILD ORGANISMS

Which species should you NOT document?

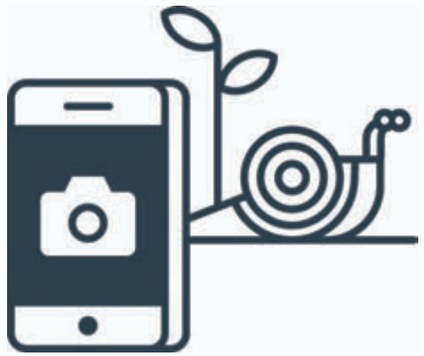
How do I know my observations were added to the Denver-Boulder project?

As long as your observations were taken within the **Denver-Boulder boundary** between **April 24-27** and successfully **uploaded to iNaturalist by 11:59pm on May 3**, they will automatically be added to the project! Check this page during the CNC to be sure: bit.ly/denverboldercnc

Using iNaturalist

Get started by visiting inaturalist.org, creating your own free account, and signing in. You can download the app to your smartphone from the Google Play Store (Android) or App Store (iPhone), or use the website from your computer.

Find plants & wildlife:
It can be any plant, animal, or any other evidence of life found in your city.



Take a photo
Take a picture of what you find. Be sure to note the location of the critter or plant.

Share!
Share your observations through iNaturalist.

Icons coutresy citynaturechallenge.org

WHAT ARE YOU RECORDING?

Who you are

You'll need to make an **iNaturalist account** and please only post your own personal observations

Where you saw it

Record both the coordinates of the encounter as well as their accuracy. You can obscure the location from the public

What you saw

Choose a group of organisms like **butterflies** or better yet a specific organism like the **Monarch butterfly**. If you provide evidence you can leave this blank and the **community can help**

When you saw it

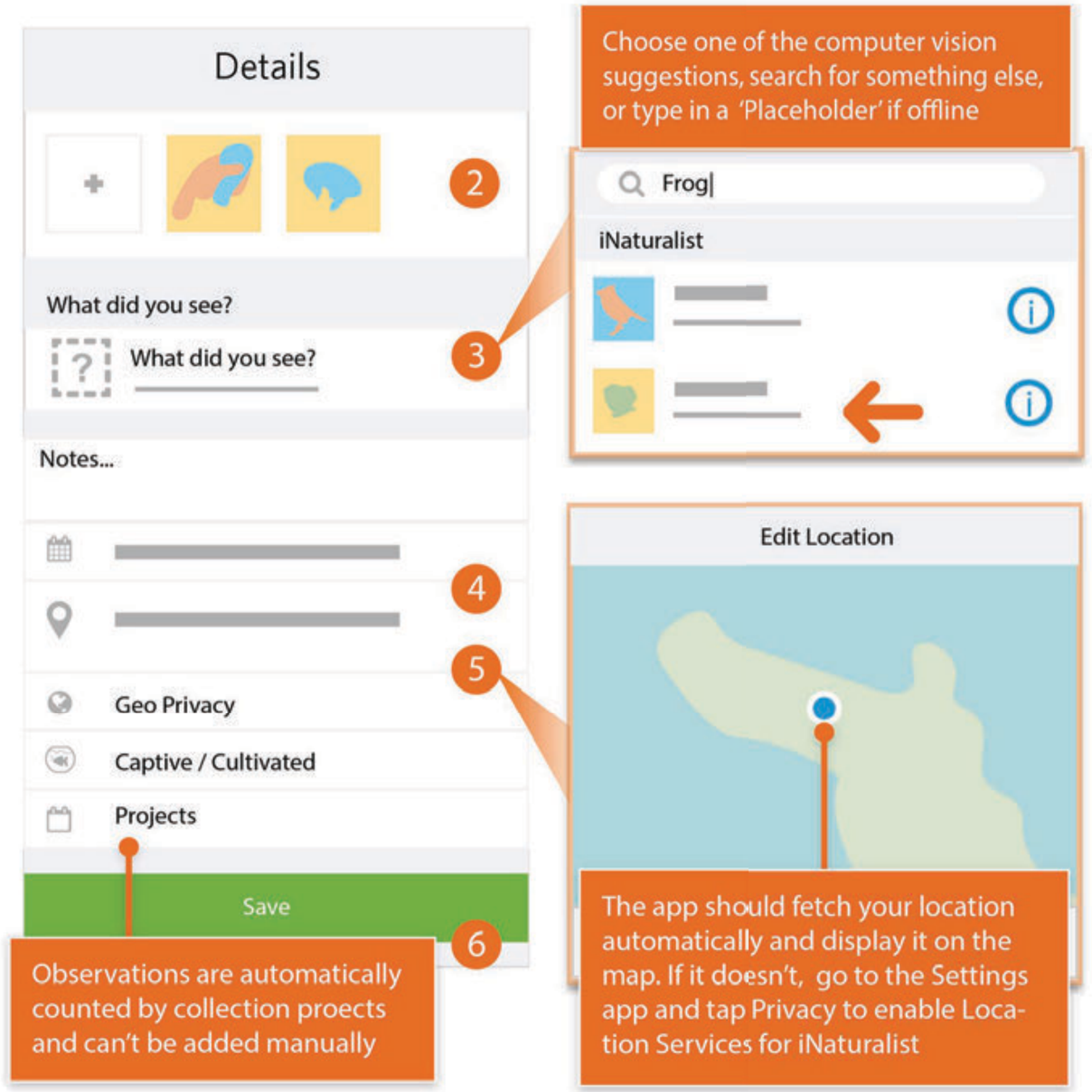
Record the date of your encounter, not the date you post it to iNaturalist

Evidence of what you saw

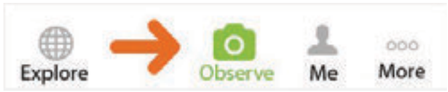
By including evidence like a **photo or sound**, the community can help add, improve, or confirm the identification of the organism you encountered. Help the community by taking clear well framed photos, by including multiple photos from different angles

Graphics courtesy of iNaturalist.org

HOW TO: iPHONE



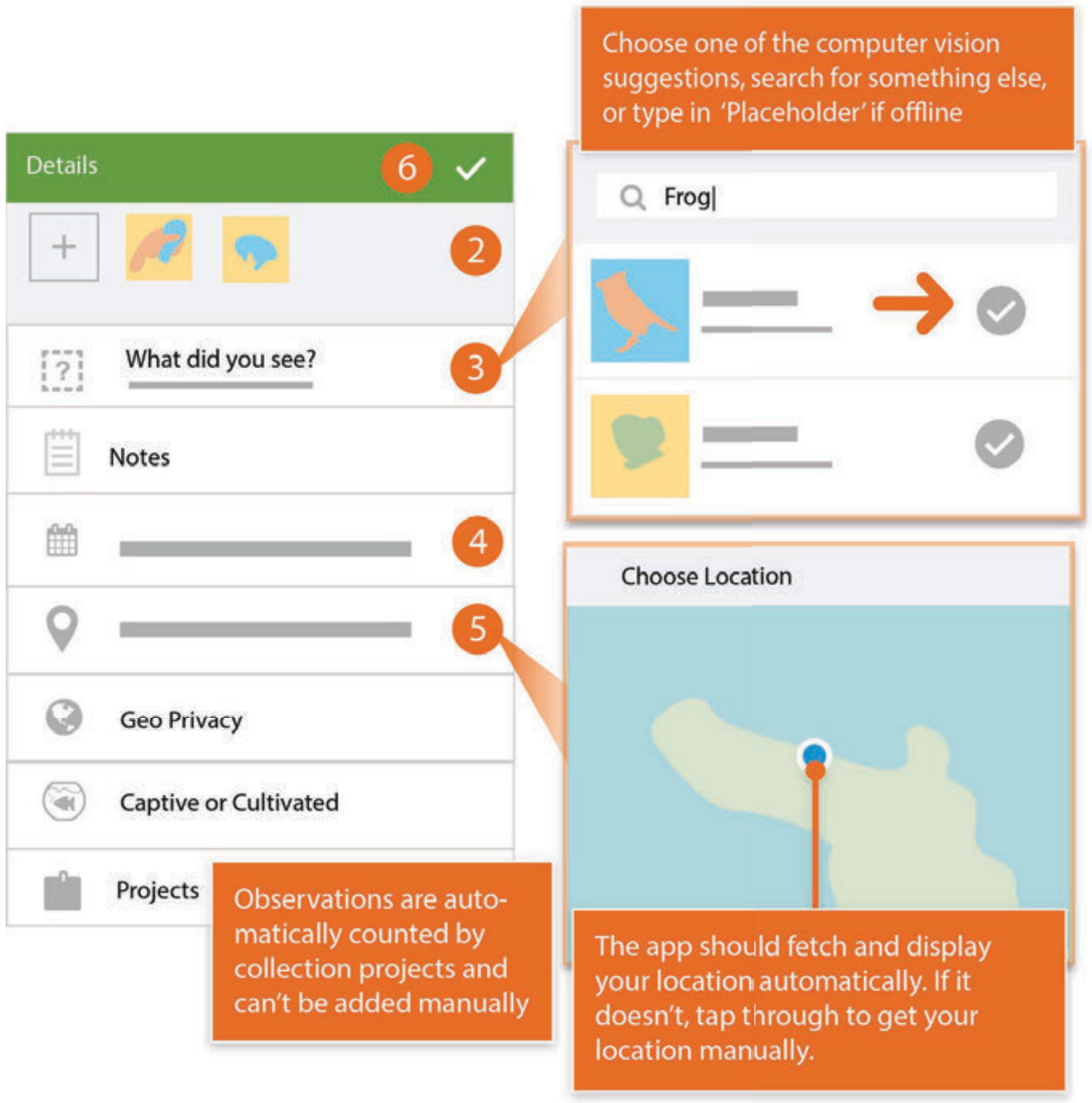
Graphics courtesy of iNaturalist.org

1. Tap **observe** 

2. Add one or more photos as **evidence**.
3. Choose **what** you saw.
4. **When** you saw it should be added automatically.
5. **Where** you saw it should be added automatically. If it doesn't, check Privacy in the Settings app.
6. **Save** your observation.
7. **Upload** to share with the community. This should happen automatically. If it doesn't, tap the Upload button. You can turn off automatic upload from the app settings from the Me tab.

8. Check back for **activity** on your observation from the community or be notified by email to the address in your account settings.

HOW TO: ANDROID



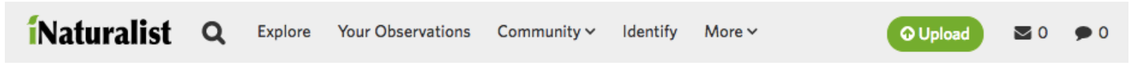
Graphics courtesy of iNaturalist.org

1. Tap the **observe** button from the My Observations tab.
2. Add one or more photos as **evidence**.
3. Choose **what** you saw.
4. **When** you saw it should be added automatically.
5. **Where** you saw it should be added automatically. If this doesn't happen, check app permissions in the Settings app.
6. **Save** your observation.
7. **Sync** to share with the community. This should happen automatically. If it doesn't, tap the button. You can turn off auto upload from the Settings tab.

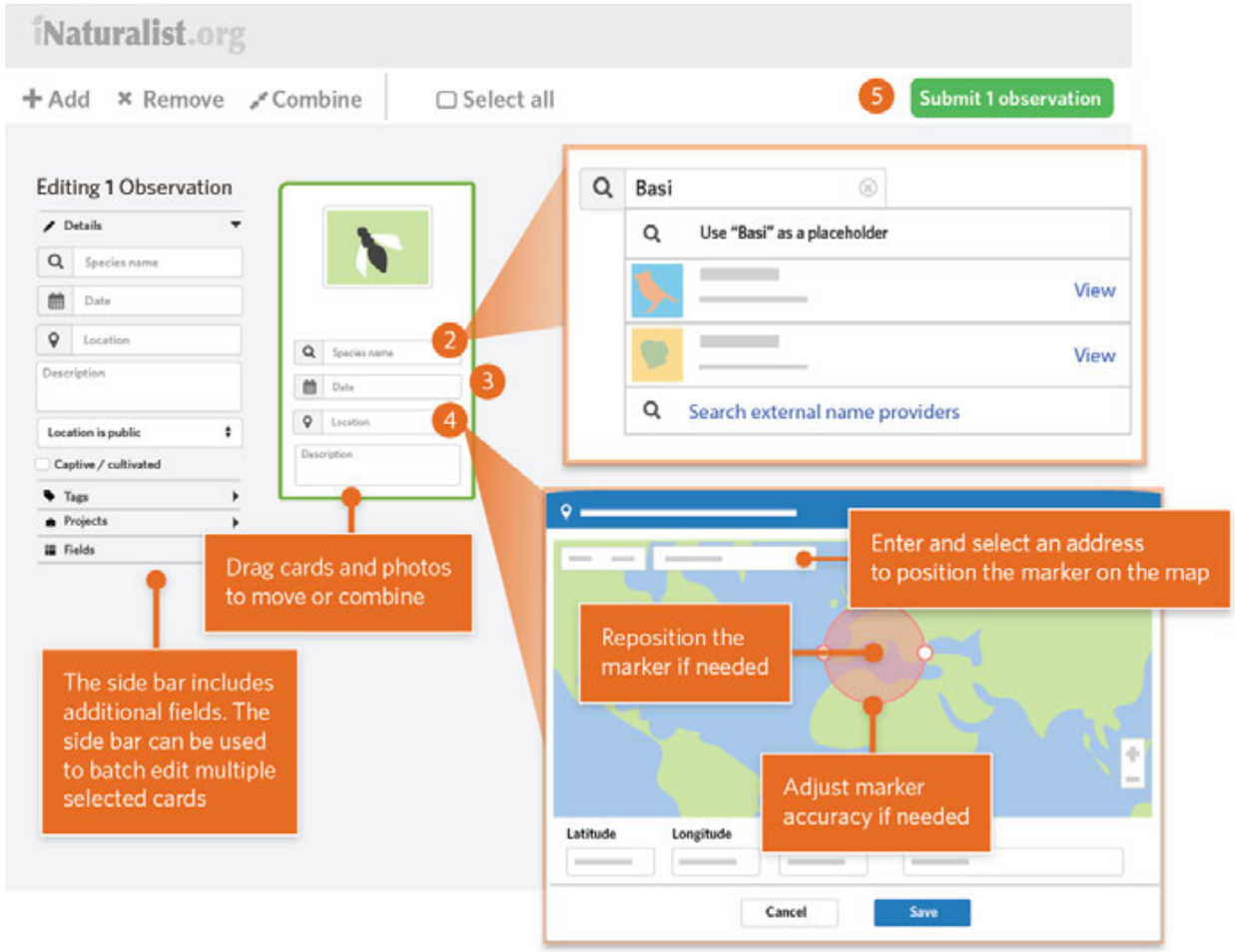
8. Check back for **activity** on your observation from the community or be notified by email to the address in your account settings.

HOW TO: WEB

1. Click the green **Upload** button from the header when you are logged in.



From the upload page, begin by dragging in one or more photos. Each photo will create an 'observation card' that you can edit before submitting. You can also use the 'Add' button in the upper left to create observation cards without photos or the 'More Import options' menu to upload a CSV or import from external sites.



Graphics courtesy of iNaturalist.org

2. Choose **what** you saw from the suggestions or by searching for a name. If you can't find what you're looking for, leave it blank or use some placeholder text. If you entered a scientific name that's not recognized, click 'Search external name providers' to first import the organism from elsewhere. Use the sidebar to let us know if the organism you observed was captive or cultivated.

3. Use the calendar to enter **when** you observed the organism

4. Type in an address and select from the places offered in order to calculate coordinates and an accuracy circle describing **where** you were. You'll probably also need to zoom into the map and manually adjust the marker position and accuracy circle size.

5. **Submit** your observation.

6. Check back for **updates** on your observations by the community or be notified by email to the address in your account settings.

Identify species

ONCE THE BIOBLITZ BEGINS...

Photo: iNaturalist user cnation

We'll need your help identifying all the plant and animal species coming in! **Here's how:**

- Visit the project page on iNaturalist at **bit.ly/boulderdenvercnc**
- Click the "**Observations**" tab.
- Click the "**Identify**" button.
- Click on the **individual observations** and either confirm the user's ID by clicking "**Agree**" or offer another suggestion by clicking "**Add ID**" and typing in the species name.
- If you prefer to only identify certain species, click the "**Filters**" button to select different taxonomic categories or to only view the observations that are listed as "Casual" or "Needs ID".
- Mark **captive/cultivated observations** via the checkbox underneath the observation photo as you see them.

Photo: David Lawrance

Tips for taking a great photo

- Photograph the entire organism (plant, animal, etc.) AND take close-ups to show details.
  - If you have a DSLR camera, macro lenses are great for plant close-ups, and telephoto lenses are great for distant wildlife.
- Try to have the sun on your back so you can have the best lighting on your subject.
- Tap on the subject to ensure the focus is clear.
- If photographing wildlife, keep a safe distance to not disturb the animal. This will help keep you safe, the animal safe, and allow you to observe its behavior longer.
- Take multiple photos and choose the best one(s) for upload. This also allows the iNat community to provide ID's!
- Be patient, and have fun!

Be safe / keep wildlife safe

When observing wildlife, please always remember to:

Follow all rules and regulations posted at each property.	**Never publicly post or share the locations of wildlife nests or dens.** Set the location to "obscured" in iNaturalist.	**Observe animals from a safe distance**. If the animal appears nervous, points its ears toward you, or runs away, you are too close!
Do not feed or approach animals, or call animals to you. Try to avoid eye contact, especially if they get alarmed.	**Do not disturb nesting birds**, which may cause them to abandon their nest.	**Respect all wildlife closures**, posted on trailhead kiosks and in brochures.

Social distancing isn't just for humans during pandemics!

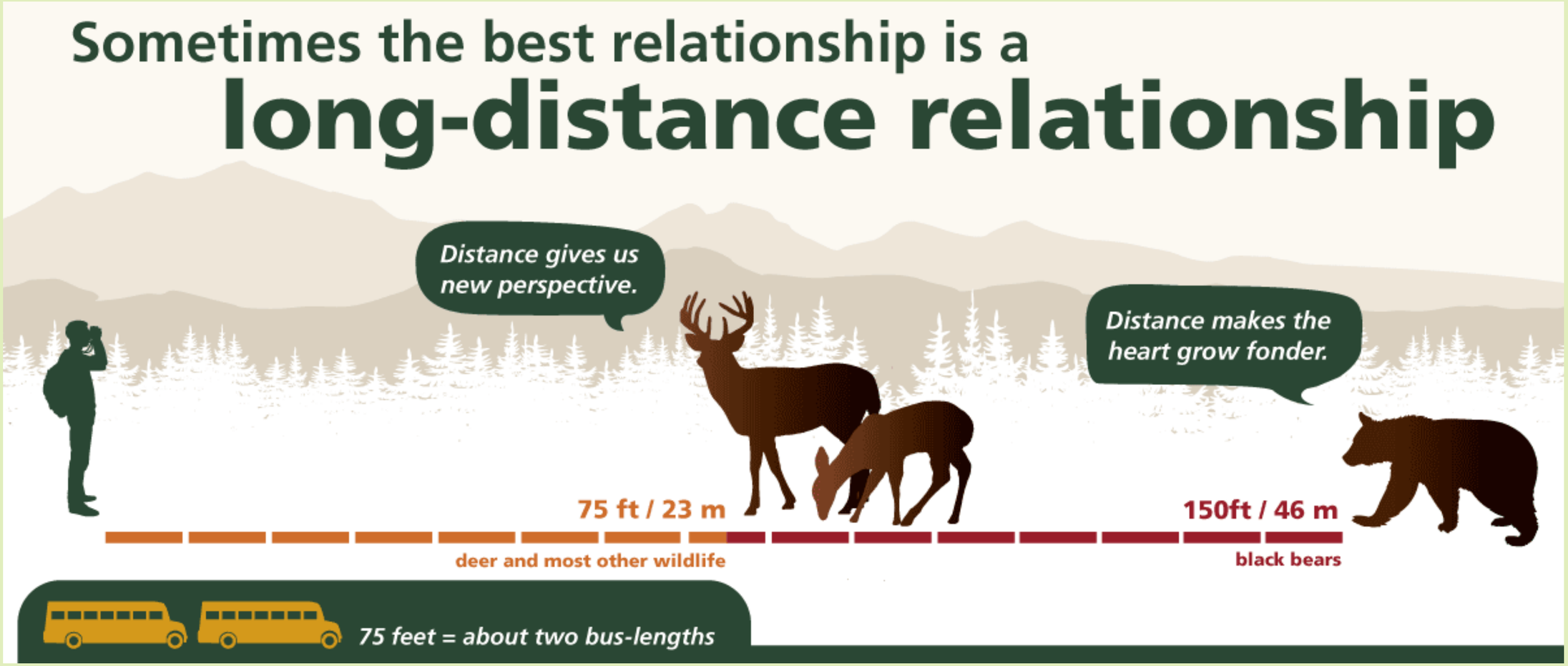


Photo courtesy of Colorado State University

Get your students & children involved!

With the stay at home orders in effect for the foreseeable future, **it's important for each of us to find ways to stay connected with Mother Nature - especially our youth.** Read on to learn about some valuable iNaturalist and City Nature Challenge resources that parents and teachers can utilize as important learning tools and activities. What's great is you don't even need to look further than your own backyard or neighborhood!

Photo: Scott Dressel-Martin

iNaturalist Age Requirements

Teachers working with younger kids need to keep in mind that the Children's Online Privacy Protection Act of 1998 means iNaturalist can't allow people **under the age of 13** in the United States to create accounts without parental approval. As of June 2019, we do have a pathway for parental approval for accounts of children under 13, but it requires a small donation to verify identity. Visit the following page for more info: inaturalist.org/user_parents/new

Another common workaround is for a teacher to add observations on behalf of the students, without including any personally identifiable information.

Photo: iNaturalist user roomthily

Learning resources

iNATURALIST TEACHER'S GUIDE

inaturalist.org/pages/teacher's+guide

CNC EDUCATION TOOLKIT

citynaturechallenge.org/education-toolkit/

iNATURALIST VIDEO TUTORIALS

inaturalist.org/pages/video+tutorials

Long-eared owl taken by Melanie Hill in her **backyard** in Boulder!

One last reminder

With the stay at home orders in place, we encourage all participants to explore nature close to their homes. If you have trails and open space nearby, that's great! Please be respectful of all people and wildlife nearby, follow all social distancing requirements, and abide by local land and facility closures. **Please avoid overcrowded areas.**

And remember that your own backyard is teeming with wild nature! Your home is a complex ecosystem and contributor to the larger landscape. Be sure to spend lots of time in your yard and/or neighborhood exploring the diversity of plants, birds, insects, mammals, and other wildlife coming through at all hours. **Have fun, and be safe!**

Photo: Dave Sutherland

Learn more about the Denver-Boulder CNC

Visit **wild.org/naturechallenge** for more details

Join the 2020 Denver-Boulder City Nature Challenge project on iNaturalist to receive updates: **bit.ly/denverbouldercnc**

For more info contact: melanie@wild.org and dnr_cpwstewardshipcitsci@state.co.us