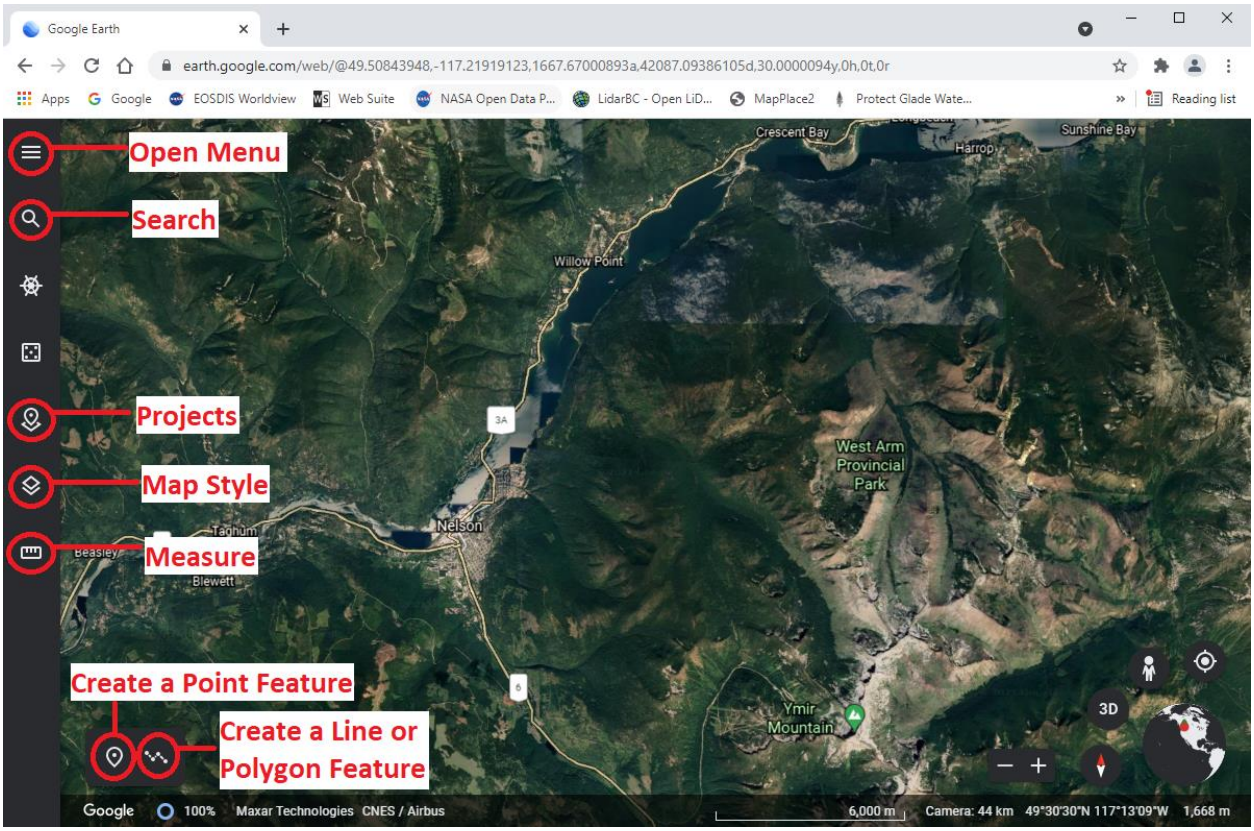
Google Earth

Google Earth (earth.google.com) allows you to easily create and view areas of interest. A Google account is not needed to use the program. You can use Google Earth directly on the web, or download it to your computer.

A more detailed version, Google Earth Pro, is available if you would like to do more detailed projects 😊

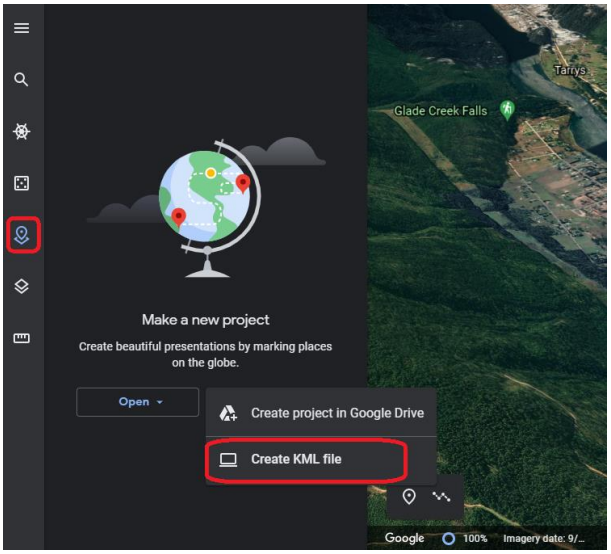


NAVIGATING AROUND THE MAP

- Use the SEARCH feature to go to an area of interest.
- Use the mouse to navigate
    - LEFT click + hold to grab and drag the map in any direction
    - RIGHT click + hold to while moving the mouse up or down to zoom in or out
        - Or, use the wheel on the mouse
    - Click + hold the wheel while moving the mouse to switch between bird's eye view and horizontal view

CREATE A PROJECT

Creating a project allows you to organize data - such as projects for nature or recreation features – and easily share all the data. A project can have point, line, and polygon (area) features attached to it. You can also upload a saved KML file to add data.

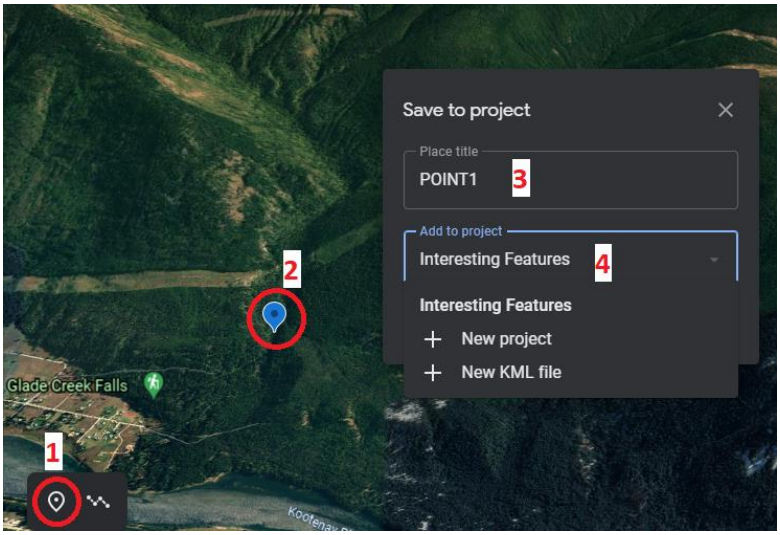


1. Click the PROJECTS icon
2. Select CREATE
3. Select CREATE KML FILE
4. Make a Project title and description

When making A new project always select

Create KML file

CREATING POINT FEATURES



1. Click the POINT icon to turn feature creation on/off
2. LEFT Clicking the map will create a marker
3. Add a descriptive title
4. Select the project you want the point attached to
    a. You can create a new project here if needed

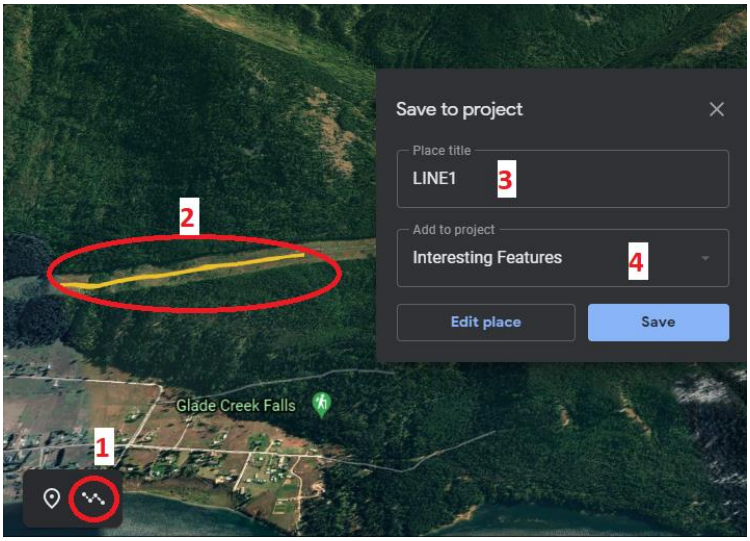
SAVE the point

HINT: When naming a point, don't use spaces. If needed, use an underscore.

NO: Point 1 YES: Point1 OR POINT_1

CREATE A LINE OR POLYGON FEATURE

Create line features to show a trail or create polygon features to show an area of interest

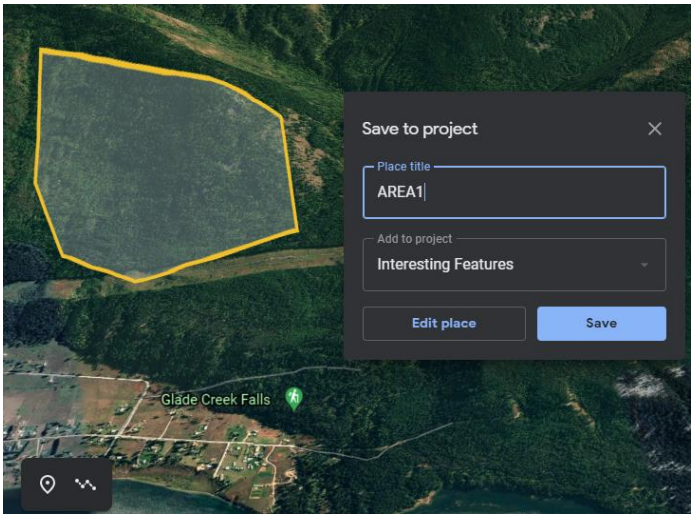


1. Select the LINE/SHAPE icon to turn feature creation on/off
2. LEFT click to place a vertex of a line. The line will automatically connect them.
    a. Hit ENTER to finish a line
3. Name the line
4. Select the project to attach it to

SAVE the line

Creating a polygon feature uses the same steps as creating a line.

Close the shape by clicking on the first point



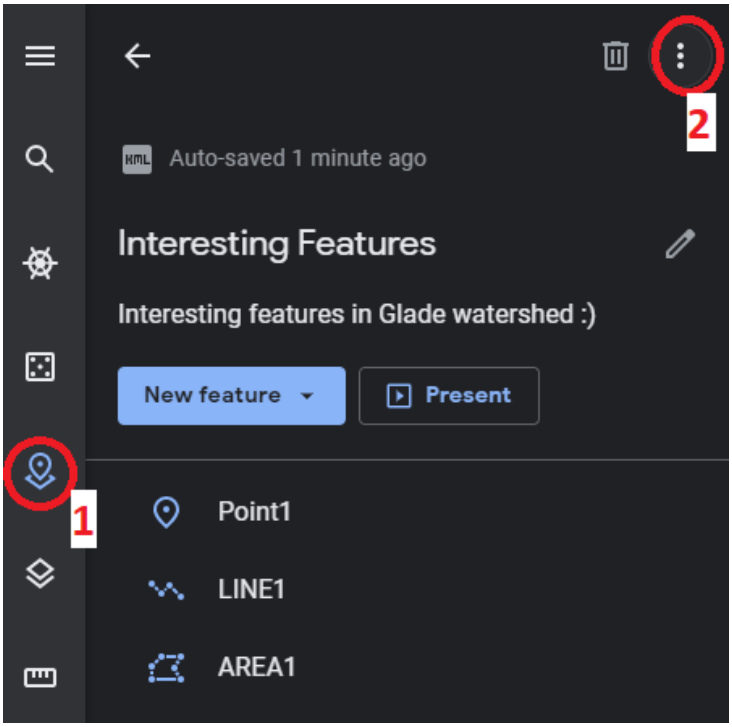
HINT: You can attach photos to a feature by going to the PROJECTS tab on the main menu, then EDIT

Click the EDIT icon to make changes to the feature.

Click the MORE icon next to a feature to delete it

EXPORT DATA

Once you have all the features you want in a project you can export the data.



1. Select the PROJECTS icon
2. Select the MORE icon in the top right corner

Export as KML file

The KML file will be saved to your computer

When naming the save file, don't use spaces!

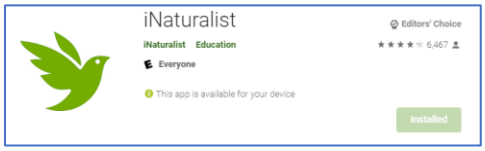
When sending a file, or group of files, place them in a zipped folder. This ensures all files are sent when sharing.

1. Select KML folder.
2. RIGHT click the folder
3. Select SEND TO
4. Select Compressed (Zipped) Folder

iNaturalist

iNaturalist.ca is a great platform for collecting data on all living organisms. You can use the website, or download the app on your phone or tablet. This how-to demonstrates the app but the website functions in a similar way. Once an observation is made, anyone can access the data.

You can download the app on Google Play for Android or the App Store for Apple.



WHAT TO OBSERVE?

Everything! Take photos of plants, pinecones, fungi, fish, animals, animal tracks, feathers, feces. Take audio recordings of birds and frogs – anything making noise. Every bit of information helps!

The MAIN MENU button (top right) will open options to navigate the app

CREATING A NEW OBSERVATION

Look for the NEW OBSERVATION button, it will be in the bottom of the screen

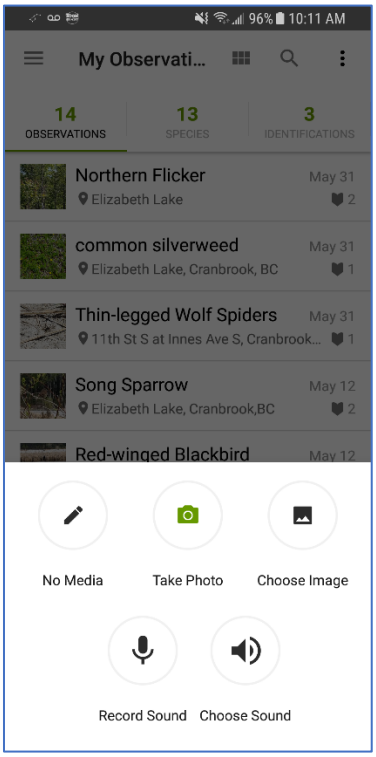
You will be presented with multiple options for a new observation. The best observations have a photo and/or an audio recording

- No Media – simply type in an observation
- Take a Photo – takes a photo in the moment
- Choose a Photo – from a saved photo
- Record Sound – records sound in the moment
- Choose Sound – from saved sound file (MP3)

NOTE: You cannot upload video files

You can take screenshots of videos to get images

You can use an app like Video to MP3 to extract sound files



FILLING OUT AN OBSERVATION

For this example, I picked CHOOSE IMAGE. The process will be the same regardless of how the observation is created.

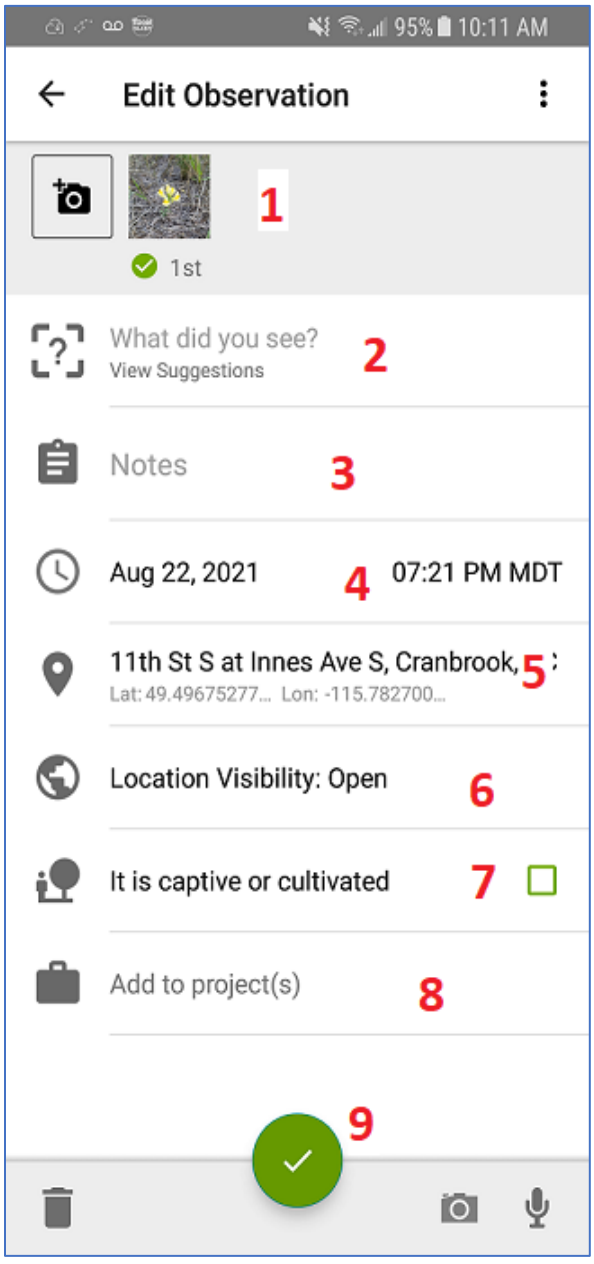
GOOD PHOTOS TIPS

Take clear and detailed photos to allow for easy identification.

Make sure the observation is the main focus of the photo

Show as many markings/features/angles as possible (plant leaves, berries, butterfly wings open)

Using a size reference can help

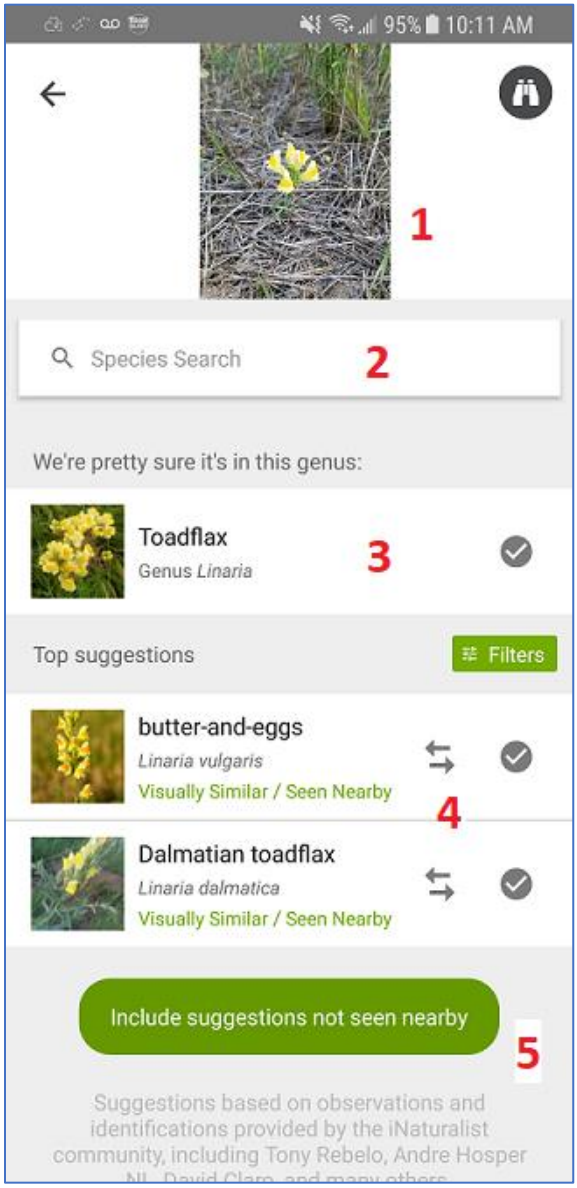


1. You will be asked to select a photo prior to the editing screen opening up. You can add additional photos and/or audio files by clicking the camera or microphone option

   Use the best photo first

2. If you can identify the observation, type it in. Or, click the space to see what the app suggests
3. Add any relevant notes such as commonly seen, animal behaviours…
4. Time and data of the observation will load automatically if using a smart device. Enter manually if not
5. Location will be provided automatically if using a smart device. Or, enter manually
   You can click the location to make the name more general – I changed this to Elizabeth Lake
6. Keep the location OPEN so everyone can see it
   iNaturalist will automatically obscure the location of endangered species
7. Only check if the observation is Captive or Cultivated
8. Optional: add the observation to a Project
9. If everything is set click to save! Or, garbage the observation, or add more photos/audio files

NAVIGATING APP SUGGESTIONS



1. My photo I am trying to identify
2. If you can identify the species, search for it here
3. iNaturalist will give a recommended identification
4. You will be given the option to make the observation more specific based on the image and observations found nearby.

   Click the two arrows to compare more images of the species

   Click the check mark to label your observation as that species

5. If you would like more options look for observations not seen nearby to compare

NOTE: The more specific the identification, the better. BUT if you are not sure, the members of iNaturalist will help! Your identifications can be confirmed, fine-tuned, or corrected.

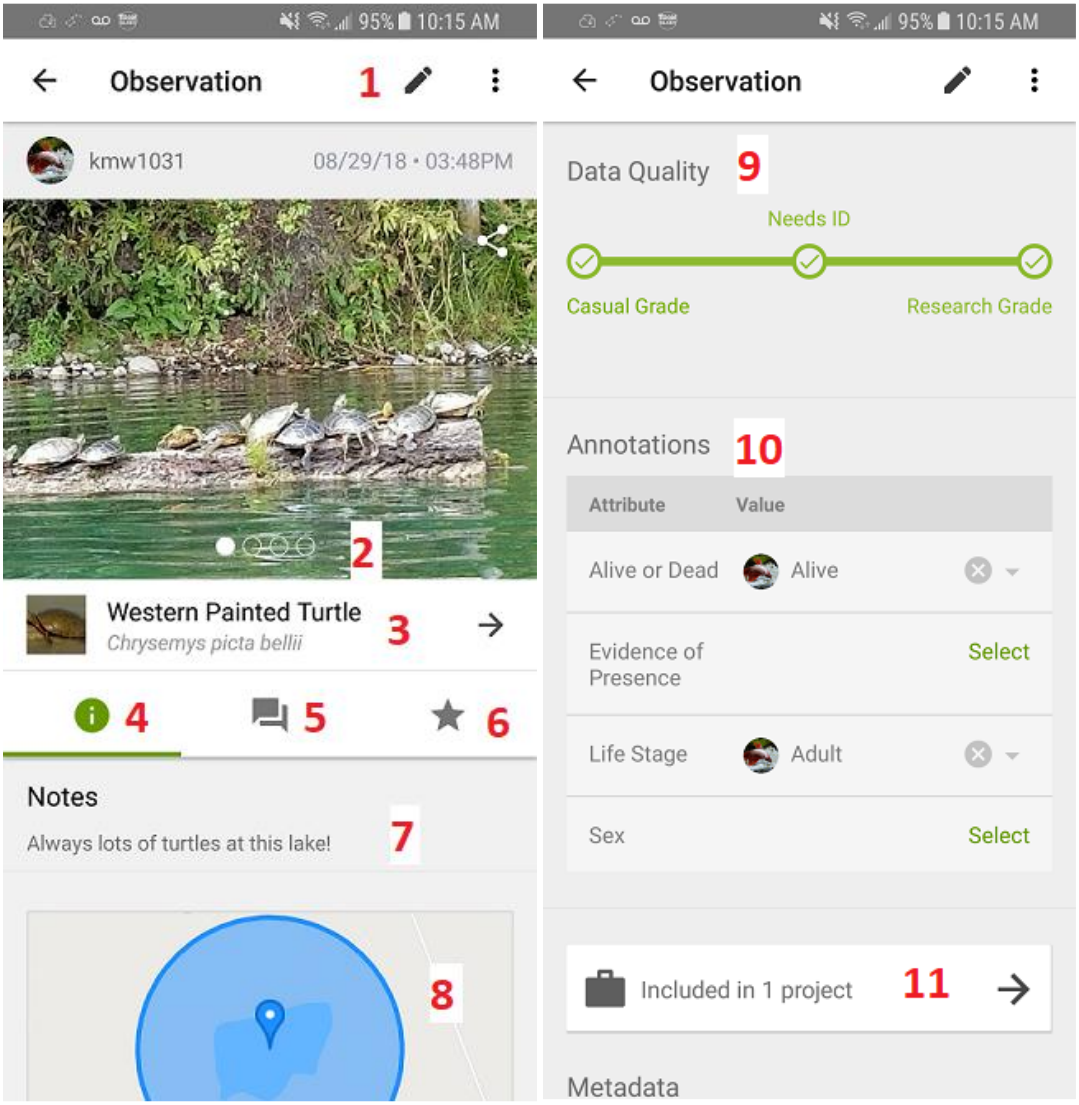
In the example above I could pick Toadflax, Butter-And-Eggs, or Dalmatian Toadflax

RESEARCH GRADE

The best observations are tagged as RESEARCH GRADE. Meaning, the species identification has been verified and the data has been confirmed as accurate.

All observations help – If you can only identify a plant to genus level that is okay!

VIEWING AND EDITING AN OBSERVATION



Click on Observation from your home screen to see more details

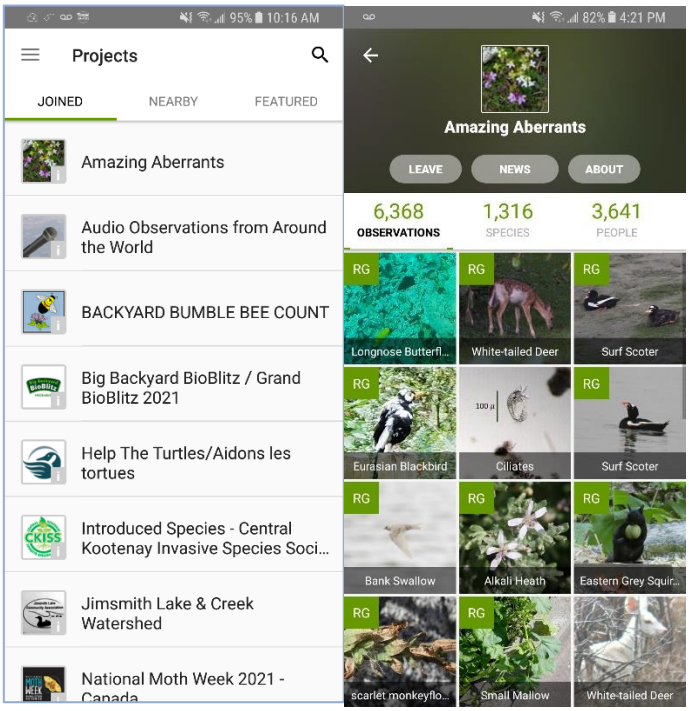
1. Click the EDIT icon if you would like to make changes
2. Scroll through all images/audio
3. Identification – click the arrow to see more info about the species
4. Information tab about the observation
5. Conversation tab: where people can agree/disagree on identity, talk about the observation
6. Optional: favorite the observation
7. Any notes about the observation will show up here
8. The location will appear on a map
9. Data quality meter – try to get to research grade!
10. Annotations: Select as much info as you can
11. Add the observation to a project, or see what projects it has been added to

WHAT ARE PROJECTS?

Users of iNaturalist are encouraged to participate in Projects. You do not need to create or belong to a project to collect data, they are simply a means of organizing observations. You will see projects for all provincial and federal parks, communities, species, schools, and BioBlitz events where people are encouraged to get as many observations as possible in a set time!

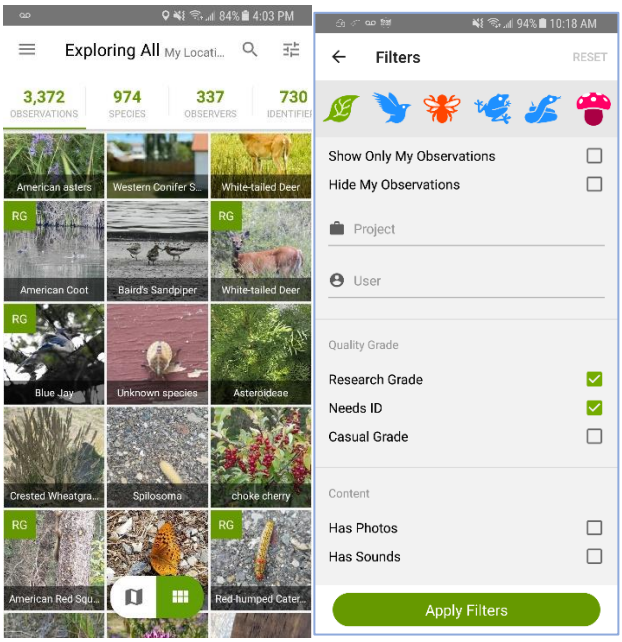
From the Main Menu Click the Projects Tab. You will see tabs for Projects you have joined, Projects taking place near your location, and Featured Projects

Click a Project to join/leave, read about it, and view observations



VIEWING AND IDENTIFYING OBSERVATIONS

You can search for observations by location, recently added, filter it by species/project, or look for observations that need identification



NOTE: There are many user created guides to help identify species. From the Main Menu click the Guide icon to search through them