

A Beginner's Guide to iNaturalist

Bruce Neville
Texas Master Naturalist, Brazos Valley Chapter, Inc.

Contents:

- I. What is iNaturalist
- II. Getting Set Up with iNaturalist
- III. Making Observations
- IV. Updating and Enriching Your Own Observations
- V. Projects
- VI. Identifying
- VII. More About Adopt-a-Loop

08 April 2025
version 1.2.1
cc-by-nc

I. What is iNaturalist, and Why Should I Care?

iNaturalist (iNat) is a citizen science platform at [inaturalist.org](https://www.inaturalist.org). The goal is to document the living environment of the world--flora, fauna, and everything in between. It is the platform of choice for many projects worldwide, including Texas Parks and Wildlife's Nature Trackers projects, the worldwide City Nature Challenge, Texas Monarchs and Milkweeds, Marine Mammals [of the world], and the local Butterflies in the Brazos and Lick Creek Park Nature Center projects. iNat now has over 233 million observations of over 510,000 species by over 3.5 million observers. The numbers for Brazos County are over 130,000 observations of almost 5,900 species by over 4,300 observers.

Anyone can participate in iNat. You do not have to be an expert naturalist or have fancy equipment. iNat is a good way to learn groups that you don't know well. All you need is a mobile phone with a camera. Download the app and begin making observations. The app uses image matching software to suggest identifications, or you can enter a broad identification, like "frog" or "plant" to attract other iNat members to suggest observations. (It's not true that every observation will be identified within an hour. My experience has been about 50%, eventually.) You can "follow" other iNat observers and contribute to projects. As you get more comfortable with iNat, you can begin "paying forward" by identifying observations for others.

You do not have to participate in iNaturalist for Texas Master Naturalists. We will not be checking to see if you have an iNat account or how many observations you have accumulated. We encourage our members to participate in iNat, as it increases one's abilities to observe and it contributes to citizen science. Under certain circumstances, time spent making iNat observations for approved projects can count toward volunteer time toward annual (re)certification. The following pages provide basic information on getting set up with, entering observations into, identifying, and working with projects in iNat.

II. Getting Set Up with iNaturalist.

First, go to the website at inaturalist.org and register as a user. You can use your real name or an alias (e.g., crazybirdlady).

Second, download the iNaturalist app to your mobile device. You can do basic observations from your mobile device, but not much more. For the more advanced tasks, you will need to go to the website.

Now, adjust your settings.

In the app, go to the settings menu (gear symbol in the upper right). You probably want to leave “Autocomplete names,” “Suggest species,” and “Show common names” activated. You want to turn OFF “Automatic upload.” If you leave that on, it will search for a signal the entire time you are working in iNaturalist and your battery will last about half an hour. (As it is, it’s a serious battery hog.)

Now, on the web, click on your icon in the upper right and choose “Profile.” Click on “Edit account settings & profile.” Under “Profile,” you can upload a photo and tell a little bit about you, if you wish. If you leave it blank, it will say “Crazybirdlady is a naturalist.” Under “Accounts,” check the time zone. For some reason, I was defaulting to Hawaii Standard Time until I found out how to fix this. If you plan to do identifications for others, you can set a default search place. (Mine is “Texas, US.”) Under notifications, I have kept “Notify me of mentions” on and turned off “Confirming ID’s.” People love to “me, too” the observations, and your email can get swamped with “yup, it’s a cardinal.” Under “Email Notifications,” I have unchecked everything except “Mentions” and “When a project adds your observations.” That seems to keep spam to a manageable level. Under “Relationships,” you can find and follow other iNaturalists. Under “Content & Display,” “Project settings” determines which projects can harvest your observations. (I have mine set to “Any.”) “Taxonomy Settings” manages how the database handles taxonomic changes. (I have mine set to “Automatic.”) Under “Licensing,” you can set the default for the photos in your observations. If you plan to sell your photos to National Geographic, you might want to list them as “copyrighted.” I have all of mine set to CC-BY-NC. This is just the default and you can change the license on individual observations or photos, as necessary.

Now you’re ready to start making observations!

III. Making Observations

All observations in iNaturalist require physical documentation, either a photo or a sound recording. At the moment, they are not able to accept videos.

Using the app. Fire up the app and click on “Observe” at the bottom. Click on “Camera.” Take your photo. If the bird moves or the wind blows the flower, you hit “Retake.” If not, click “Use Photo.” You should take as many photos as needed to help others confirm your identification. For plants, try to get flowers, leaves, fruits or seeds, overall growth, etc. For critters, the more pictures, the more useful. To add pictures to an observation, click on the box with the + sign in the upper left, and repeat as necessary. When you’re ready, hit “Save.” Rinse and repeat.

During a break or when you get home, you can enter a preliminary identification. From the observations page, click on an “unknown, waiting to upload” observation and click “edit.” Click on “What did you see?” If you pause, it will run its image matching algorithm and make some suggestions. It often suggests just to the genus, so it will say “We’re pretty sure this is in the genus *Pandion*,” when the only species (so far) in the genus in the world is *Pandion haliaetus*, so you’re pretty safe going with that. On the other hand, it doesn’t always take geography into account, and all large blackish birds are Carib Grackles. 🤔 You should enter *something* to help potential identifiers find your observations, even if it’s just “snake” or “flowering plant.” Many identifiers will be looking for particular groups and not complete “unknowns.”

You can also use another camera, either on your phone or a regular SLR. Take the pictures as you normally would. If your camera can capture GPS coordinates and time, that’s particularly useful.

For sound recordings, again, click on “Observe” at the bottom. This time click on “Record Sound.” Click on the microphone symbol. You should see green bars at the left move as the app records. Click the pause button to pause or stop. Repeat if you want to add more to the same recording. When finished, click “Save Recording.” The app does not have matching software for sounds, so it’s best to put a preliminary identification in “What did you see?” You’ll have to enter this yourself. Click “Save.”

You can also use sound recordings from videos taken by another device, including your mobile device. Take the video as you normally would on your device. Then, go to the iNaturalist app, click “Observe,” and click “No Photo.” Enter what you saw to remind yourself and add something to the effect of “audio file to be added later” in the notes, then click “Save.”

This is pretty much all you can do from the app. From here, you’ll have to get home and log into the website.

IV. Uploading and Enriching Your Observations

If your observations were done using the app, they will upload directly to the website. Open the website and click “Upload” on the mobile device. The upload will proceed automatically and include all of the photos associated with the observation.

If you use the camera (and not the app) on your phone, which can be useful for fast-moving insects, go to the iNaturalist app, click on “Observe,” and select “Photo Library.” This will take you to the photos in your camera. Select the photos for one observation and click “Add.” This takes you back to iNaturalist, where you can save the observation.

If you have photos taken with a different camera, upload them to your computer. Click on the green “Upload” bar at the top. Now, drag the photos into the space. If you have multiple photos of the same organism, they will initially show as separate observations. Click and drag the multiple observations on top of one observation to merge them.

If you have sound recordings from a microphone app, they should upload directly to iNat. If you have videos, you will have to convert them to an audio format that iNaturalist can accept (.mp3 or .wav). There are free converters on the web. Google “convert mp4 to mp3”.

Now, go to “Your Observations” and select an observation to edit. If you have additional photos or audio recordings to include in the observation, click on the picture (mountain) icon below the photo. It will bring up a dialog box for you to search for the additional files. Select (ctrl-click for multiple files) and hit “Open.” The photos and audio recordings should now appear in the observation. You should put in as much information as you can in the Annotations. Plants have “phenology,” from which you can select multiple values, and “sex.” Animals have “Alive or Dead,” “Evidence of Presence,” “Life Stage,” and “Sex.”

iNaturalist observations should be of a single species. Often, you will have a photo that includes both a flower and an insect pollinator or a couple species of shorebirds. You can handle this by clicking on the down arrow next to “Edit” above the map and choose “Duplicate.” Then put “This observation is for the flower” in the comments for one and “This observation is for the butterfly” in the other, or “This observation is for the larger bird on the left” and “This observation is for the two smaller birds on the right.” Identifiers don’t always read the notes, but at least you can go back and say (nicely) “I said *the butterfly!*” I also use this trick sometimes when I’m in the middle of an observation and need to get a quick shot of an insect or something that comes into view. I just get the shot of the insect, then duplicate the whole observation and split it into two when I get home (hopefully before someone says “you have two different species in this observation, you idiot!”).

If you click on “Edit,” and not the down arrow, you can edit pretty much anything in the record. You can zoom into the map, if you need to move the location. You can change the date or time. You can add additional notes. You can also add (or delete or re-order) photos and sound recordings from here. iNaturalist is designed to be a database of *natural* distribution, but observers will photograph potted plants and zoo animals. Please resist the temptation. Sometimes, as with trees in parks, it can be difficult to tell if an individual is native or cultivated. If in doubt, you can check “Was it captive/cultivated?” here. Then click “Save observation” at the bottom.

V. Projects

One of the fun and strengths of iNaturalist is in its “projects.” Anyone can start or join a project. Other projects will also “harvest” observations. From the homepage, choose “Community” and “Projects.” You can search for projects using keywords like brazos, pollinators, or adopt. Once you join a project, it will show in a drop-down menu when you edit observations. If you just have a few observations, you can just click on the project to add it to an observation. You may also see it harvested by a project like “Plants of Texas” or “Birds of Texas.” You can also designate an area around your yard and build your own yard list.

The GTWT Adopt-a-Loop (AAL) Project has one additional twist. This project covers all of the sites in the state, so they have designated an additional “Observation Field” named “Place of Observation (Site Number):”. You put the site number in, then add it to the project. (And half the time, it says it doesn’t find the site number, anyway. Tell it more firmly and it will eventually believe you.) If you have a bunch of observations, you can add this project with batch editing to save re-entering the site information every time. To do that:

Go to your profile icon and choose “Edit Observations.” Choose “Batch Edit.” Select the observations from one AAL site. (If you have a lot, “Select All,” then de-select the few that don’t fit.) Now, “Edit Selected.” Click on the arrow in the yellow “Batch Operations” box to open the batch edit dialog. Click on the arrow by “More Fields.” Under “Add a Field,” start typing “Place of Observation” and select “Place of Observation (Site Number):”. Enter the site number and name and click on “Apply Fields.” Scroll down to “Save All.” Now the site number is in the proper field. If you visited multiple sites, repeat for each site. Then go back to the observations and select all AAL observations. In the bar at the top, select “Add to a project” and select “GTWT Adopt-a-Loop.” Done.

VI. Identifying

The other side of the iNaturalist coin is identifying observations for others. This is one way to give back to those who have contributed identifications to your observations. For an observation to become “Research Grade,” it must be identified by two different identifiers (or the observer and one other identifier). If the subsequent identifiers disagree, then it has to wait for a consensus before becoming Research Grade.

To help with identifications, click on “Identify” at the top. If you set up a default location in your profile, it will show you all the unidentified observations in that geographic area. If you don’t feel comfortable identifying everything, you can filter the observations by clicking on “Filters.” There are icons for birds, insects, plants, and others. You can also use the “Search Species” box to limit to any taxonomic level, such as grasses or, in my case, wentletraps.

You can scroll through and look at the photos to see what people are posting. If you agree with the identification, you can click “Agree.” You can also click on the observation to get a better look or see multiple photos. If you open the observation, you can click on agree, “Add ID,” or “comment.” If you’re going to disagree, it’s good form to say why. You don’t have to identify something all the way to the species level. Many things are unknown or identified only at the very highest level. If you can narrow it down further, it may bring it to the attention of another specialist who can get it identified further.

VII. More About Adopt-a-Loop

The goal of the Adopt-a-Loop (AAL) project is to update the Texas Parks and Wildlife Birding Trails maps. With only two staff and all of Texas, the TPWD is asking for help from the Master Naturalists to gather data. They want to expand the information on the sites to include not just birds, but all of the flora and fauna, and they are using iNaturalist and eBird to gather the data. Any data that you can contribute will be useful to the project.

When eBirding an AAL site, please be sure to use the hotspot for the site that is associated with the AAL site. The site number is on all of the appropriate hotspots, at least in our area.

For iNaturalist, instructions are given above for adding observations to the project. TMN Brazos Valley Chapter has adopted the following sites:

PPWW 001 Washington-on-the-Brazos State Historic Site
PPWW 005A Lake Somerville State Park Complex
PPWW 008 Lick Creek Park
PPWW 011 Brazos Valley Museum of Natural History, including the Jay Pritchard Trail
PPWW 012 Lake Bryan
PPWW 013A Apache Pass, Rockdale
PPWW 013B Frances Nabours Griffin Bird Sanctuary, Wilson Ledbetter Park, Cameron
PPWW 025 Fort Boggy State Park

Members of the TMN Brazos Valley Chapter may claim volunteer credit for time spent surveying any of these sites under the AAL Project if that survey is the *primary purpose* of your visit. The VMS opportunity is called “Adopt-a-Loop – Great Texas Wildlife Trails” and appears above all the AT entries. Do not claim volunteer credit for casual observations during visits to the site for other purposes. AAL must be the primary purpose of the visit. Please document the site(s) visited and the number of observations uploaded in the remarks section of the VMS entry. If it is not already there, please email Betty Vermeire at membership@txmnbv.org to have the AAL project added to your list of VMS opportunities. Members of the TMN Brazos Valley Chapter are encouraged to contribute to the AAL project at other sites throughout the state, but may not claim volunteer credit outside our home territory.