

# Submitting Information to the Montana Natural Heritage Program Using iNaturalist

**Bryce Maxell**



MSL Learn Webinar Series



## Today's Agenda

**Montana Natural Heritage Program**

**The Value of iNaturalist Data**

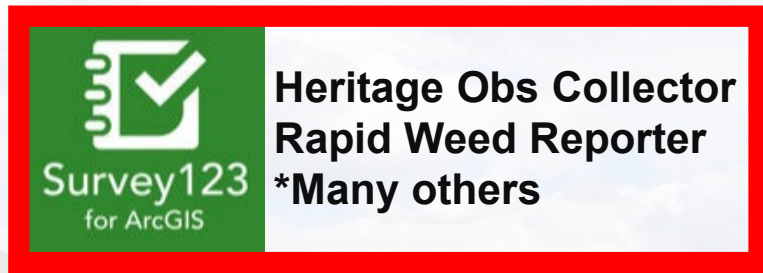
**Using iNaturalist  
Training Materials**

# How To Submit Data to the Montana Natural Heritage Program Using iNaturalist



# Montana's Data Centralization Philosophy: There is No One Right Way...however...

- Provide tools for observation submission



- [YouTube playlist on how to submit data to MTNHP](#)
- Seek out data submitted elsewhere



# iNaturalist

Global

166,622,160  
OBSERVATIONS

430,589  
SPECIES



338,174  
IDENTIFIERS



2,910,799  
OBSERVERS

Montana

296,523  
OBSERVATIONS

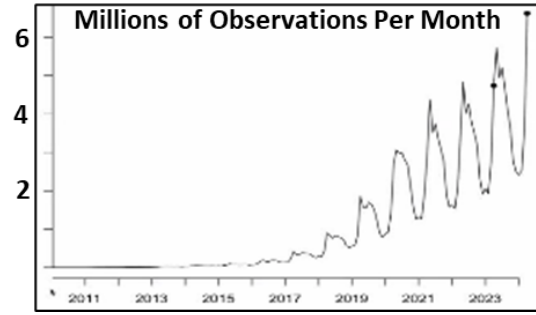
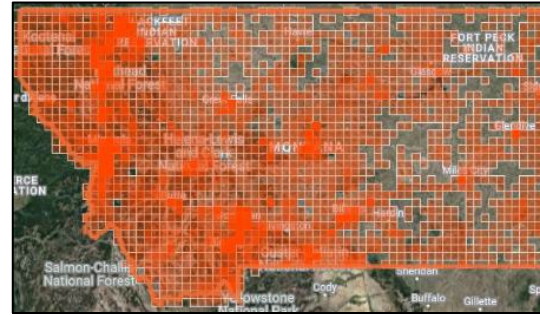
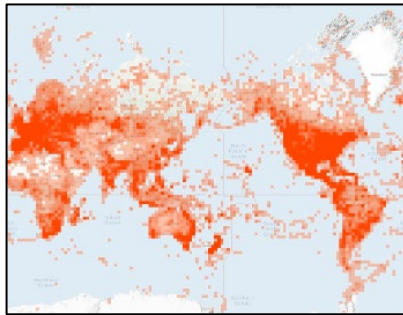
7,937  
SPECIES



8,479  
IDENTIFIERS



15,755  
OBSERVERS

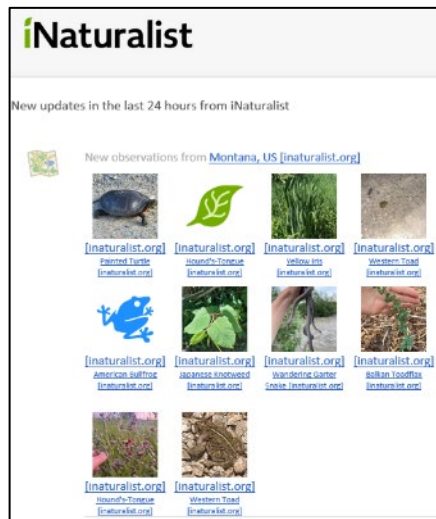


Taxa	No. of Orders	Total No. of Obs	No. Obs for SOC	No. Obs for Non-natives
Vertebrates	36	19,144	3,688	337
Invertebrates	23	7,761	62	765
Fungi	20	452	?	38
Lichens	9	88	4	3
Mosses	1	4	0	0
Vascular Plants	58	30,696	225	5,123

- 26,905 zoological & 30,696 botanical records now appended (19% of MT iNat records)!
- 102 “Experts” identified whose identifications in iNaturalist can be fully trusted
- Collaborating on common workflows, best practices, & North America-wide expert list

# We now encourage iNaturalist for data submissions above other methods because

- It is addictive and fosters user appreciation of all species
- iNaturalist community assists with record curation
- >700 iNaturalist “experts” review records for us
- We have automated appends of “expert” identified records
- Photo & sound file documentation is fully linked to tabular records
- Taxa subscriptions in iNaturalist & our audits allow prioritized review
- Records are much easier to review in iNaturalist



# iNaturalist Data Use Cases

- Massive increase in detection possibilities
- Early Detection Rapid Response (EDRR) of newly arrived invasive species
- Increase in records for rarely detected species
- Improving understanding of range extents
- Data in rarely surveyed places for predicted habitat suitability modeling
- New occurrences or more recent data for SOC Occurrences
- Potential for occupancy analyses
- Informing conservation status assessments for all species...info bank!

Palmer's Amaranth



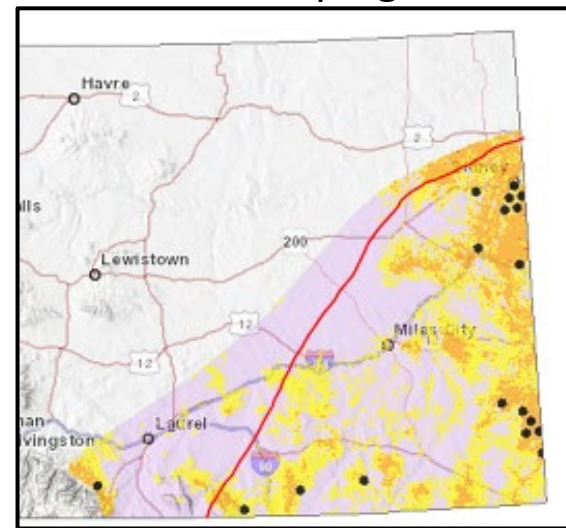
Rush Skeletonweed



Short-styled Columbine



Meadow Jumping Mouse



Greater Short-horned Lizard



# Setting up an iNaturalist Account

1. Create an account at <https://www.inaturalist.org/>
2. Download iNaturalist app on your cell phone from your favorite app store

Phone

Desktop



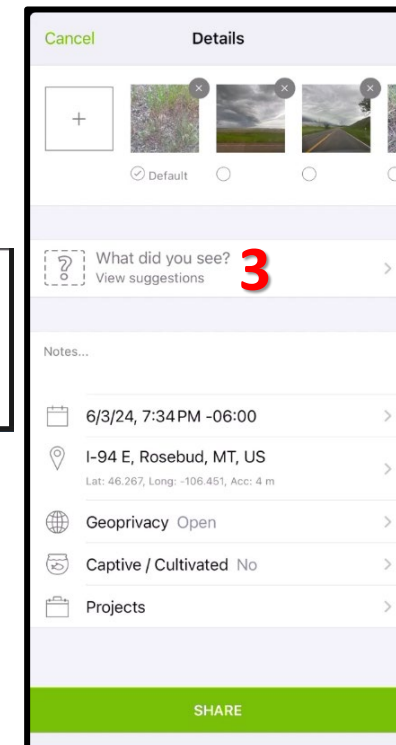
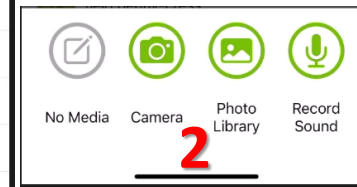
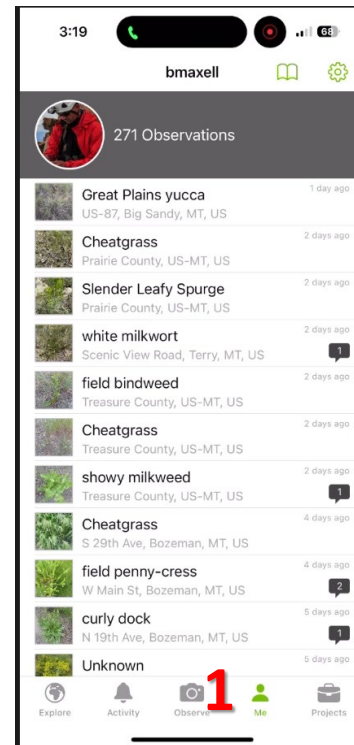
3. Login to your recently created account

Phone

1. Click Observe
2. Select photo or sound source
3. Identify what you saw as best you can. Use suggestions by iNaturalist for assistance.

Desktop (see following slides)

1. Subscribe to species of interest to get reports of observations for species & areas of interest
2. Identify observations of others





# Using iNaturalist

## How It Works



1

Record your observations



2

Share with fellow naturalists



3

Discuss your findings

# iNaturalist Resources

- [Seek by iNaturalist for assistance with identification](#)
- [iNaturalist Resources for observers](#)
- [Guide for taking iNaturalist photos](#)
- [Montana Natural Heritage Observations Project](#)
- [How to submit data to the Montana Natural Heritage Observations Project](#)
- Individuals with expertise willing to be tagged to assist with ID in Montana
  - Scott Mincemoyer (vascular plants): @scott\_mt
  - Peter Achuff (vascular plants): @plachuff
  - Kenda Herman (vascular plants): @kendarae
  - Dan Bachen (general resource, vertebrates): @dbachen
  - Bryce Maxell (general resource, vertebrates): @bmaxell
  - Zach Shattuck (fish): @pantosteus
  - Alexis McEwan (amphibians, reptiles): @lex\_13
  - Bo Crees (birds): @bocrees
  - Ian Foley (invertebrates): @ian26
  - Noah Siegel (fungi): @noah\_siegel
  - Ryan Patrick (fungi): @biglaughinggym
  - Craig McLane (aquatic invasive species): @cmclane



# Setting Alerts for Species Observations

The screenshot shows the iNaturalist user interface for a user named 'dbachen'. The top navigation bar includes 'Explore', 'Your Observations', 'Community', 'Identify', and 'More'. The user's profile is visible on the left, and a dropdown menu is open on the right, listing options like 'Dashboard', 'Edit Observations', 'Calendar', 'Identifications', 'Lists', 'Journal', 'Favorites', 'Projects', 'Profile', 'Account Settings', and 'Sign Out'. A red '1' is placed next to the 'Dashboard' option.

In the center, a 'Subscribe to a Place' popup window is displayed. It contains the following text: 'Subscribe to all observations posted within this place. You can also add an optional taxon filter (e.g. 'scorpions from Texas').' Below this, there are two dropdown menus: 'Place \*' and 'Taxon'. A red '4' is placed next to the 'Place \*' dropdown. A 'Save' button is at the bottom, with a '\* Required' note below it.

At the bottom of the page, there is a 'Subscriptions' button with a plus sign, circled in red with a red '2' next to it. Below it, the 'Places' section shows 'Montana, US ( *Gulo gulo* )' with a gear icon. A red '3' is placed next to the 'Subscribe to a Taxon' button.

On the right side, there is a 'New updates in the last 24 hours from iNaturalist' section. It shows a grid of observation thumbnails. A red '5' is placed next to the 'iNaturalist' logo at the top of this section.

On the left side, there is a list of updates. One update from 'lincolnIndurey' is visible, with a comment: 'please delete this duplicate (11th of 11?) first to keep is: https://www.inaturalist.org/observations/107932067'.

1. Navigate to Account Dashboard
2. Look for the "Subscriptions" box. Note that you may need to scroll down. Its dynamic and can usually be found on the right or bottom
3. To subscribe to updates from anywhere across the species range select "Subscribe to a Taxon" to limit your subscription to Montana or a discrete geographic area select "Subscribe to a place"
4. In the popup window choose the appropriate place and taxon. Note that if taxon is left blank all observations from that place will be included.
5. You will receive a daily email of records submitted for taxa you have subscribed to.

# Identifying Records to Become a Better Naturalist & Assist iNaturalist Community


The screenshot shows the iNaturalist 'Identify' interface. At the top, the 'Identify' tab is highlighted with a red '1'. Below it, the search bar contains 'Long-toed Salamander' (marked with a red '2') and 'Montana, US'. A 'Go' button is next to it. To the right, a 'Filters' menu is open (marked with a red '3'), showing 'Reviewed' checked (marked with a red '4'). Below the filters, there are sections for 'Quality Grade' (with 'Casual', 'Needs ID', and 'Research Grade' checked), 'Categories' (with various icons), 'Date Observed' (with 'Any' selected), 'Photo Licensing' (with 'All' selected), and 'Reviewed' (with 'Any' selected). At the bottom left, an 'Update Search' button is highlighted with a red '5'. Below the filters, there are four record cards for 'Long-toed Salamander' (*Ambystoma macrodactylum*), each with a photo and a user profile picture. The first card has a red '5' on it.


1. Click on the Identify tab.
2. Select the species and place of interest
3. Open the Filters menu and select the review criteria you want...selections shown will show all records...then click Update Search at lower left
4. If you only want to see records you have not already reviewed, turn off the Reviewed checkbox
5. Click on individual records and review details of location, date, accuracy and click Agree with previous identification or enter your identification.


# Adding Entered Observations to MTNHP Project


**\*This is only necessary for “obscured” observations so that MTNHP and resource managers can see the precise location of the observation.**

## Activity

 bmaxell suggested an ID 👤 Improving 3mo


 **Bumble Bees**  
Genus *Bombus* ⚖ Compare

 johnascher suggested an ID 👤 Leading 2mo


 **Half-black Bumble Bee**  
*Bombus vagans* ⚖ Compare ✅ Agree

## Community Taxon

[Reject?](#) • [What's this?](#)

**Bumble Bees** (Genus *Bombus*) 

Cumulative IDs: 2 of 2



0 2/3rds 2

✅ Agree ⚖ Compare ℹ About

👍 Annotations

## On Desktop Computer


1. Go to Projects under your profile and add project of interest if you do not already belong to it.
2. Go to the observation of interest
3. Below and to the right of the activity list of identifications click Projects
4. Select the project of interest

## On phone app:

1. Click on Projects folder and add project if you do not already belong to it.
2. Go to observation of interest and click on Edit
3. Open Projects folder
4. Select project

👍 Projects (1)

Add to a Project

 Montana Natural Heritage Observations ⚙

# MSL YouTube Channel

- Look for the MSL Learn Webinar Series Playlist
- Access new recordings
- Subscribe!

**Montana State Library**  
@montanastatelibrary 157 subscribers 131 videos  
The Montana State Library helps all organizations, communities, and Mont... >  
msl.mt.gov

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### MSL Meetings

State Library Commission Meeting	2023 Public Library Standards Task Force Meeting	MT Land Information Advisory Council	Network Advisory Council Meeting:
October 11, 2023, at 9:00 a.m. Aiz 501 Water Civic Center, Columbus, MT and Zoom	August 22, 2023 at 9:00 a.m. Zoom	June 23, 2023	February 1, 2023, 9:30 am
55 videos	2 videos	14 videos	25 videos
<b>MSL Commission Meetings</b> Public · Playlist Updated 5 days ago <a href="#">View full playlist</a>	<b>2023 Public Library Standards Task Force</b> Public · Playlist <a href="#">View full playlist</a>	<b>Montana Geospatial Information Advisory Council</b> Public · Playlist <a href="#">View full playlist</a>	<b>Network Advisory Council (NAC)</b> Public · Playlist <a href="#">View full playlist</a>

### Learn with MSL

MSL Learn Webinar Series	Tiny Tech Trainings	Montana Shared Catalog	2023-24 MLN Virtual Programming Series	Webside Chats
Hosted by Pam Healey	Tiny Tech Training			
20 videos	10 videos	4 videos	2 videos	
<b>MSL Learn Webinar Series</b> Public · Playlist Updated 7 days ago <a href="#">View full playlist</a>	<b>Tiny Tech Trainings</b> Public · Playlist <a href="#">View full playlist</a>	<b>Montana Shared Catalog</b> Public · Playlist <a href="#">View full playlist</a>	<b>2023-24 MLN Virtual Programming Series</b> Public · Playlist Updated 4 days ago <a href="#">View full playlist</a>	<b>Webside Chats</b> Public · Playlist Updated 3 days ago <a href="#">View full playlist</a>

# MSL Evaluation Survey

<https://forms.office.com/g/ffUuzbA8gn>



Bryce Maxell  
Director, MTNHP  
bmaxell@mt.gov



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