**iNaturalist.org Tips, Techniques, and Uses**

If you are just getting started and want an overview of the website and how to make observations, add identifications, manage a project, etc., check out the iNaturalist.org help page: https://www.inaturalist.org/pages/help

If you have specific questions you can post them to the iNaturalist Google Group (make sure to supply the group with a link to your specific question): https://groups.google.com/forum/#!forum/inaturalist

iNaturalist has growing support among the scientific community, not only from the many scientists within the platform, but scientific research and publications are starting to be produced to examine its use and validity. Check out this thread: https://groups.google.com/forum/#!topic/inaturalist/xDlfg_pfLy0

There are motivational videos that iNaturalist is producing, here is one: https://vimeo.com/164366580, or this one: https://vimeo.com/276380582

How popular is iNaturalist? Don't forget about the hidden statistics page: https://www.inaturalist.org/stats

And here are two iNaturalist journal posts that capture the impact this platform and community can have on people: https://www.in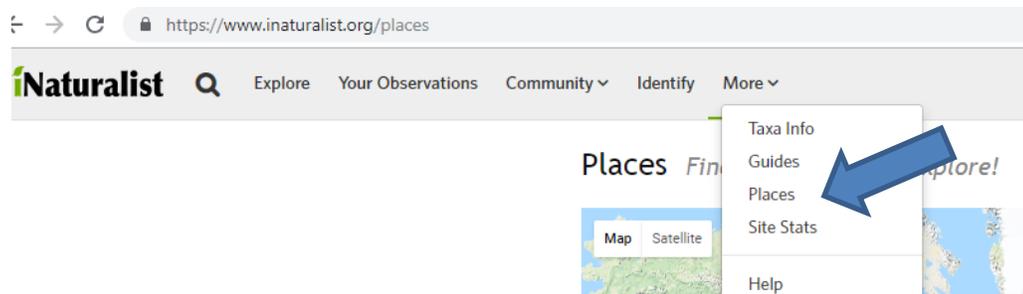aturalist.org/journal/sambiology/3679 and https://www.inaturalist.org/journal/mchlfx/5539-beginning-inaturalist-workshop-heard-natural-sciences-museum-02-20-2016

**Onto some of the ways Little Traverse Conservancy is exploring the use of iNaturalist.org to gather more biological data from our properties, capture observations from the public as they visit our preserves, engage volunteers interested in citizen science, and transpose this data in ways that is useful for stewardship decision making.**

*The following instructions include screenshots and arrows to show places to click. Note: iNaturalist will occasionally update the appearance and functionality of the site.*

I.      **Collecting and Sharing Observations from Nature Preserves**

1.  Create a Place



Created by Derek Shiels, Little Traverse Conservancy, Derek@landtrust.org 10/23/2018

Give the place a name and upload a KML file or draw the boundaries using to tool on the map.

2. Embed Place widget
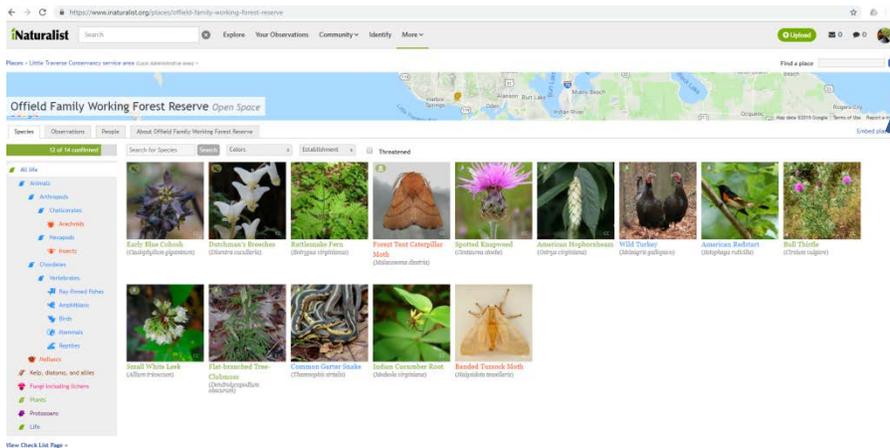


Click 'Embed place widget' button to get widget configure page. Copy code (I found I liked to reduce the height, so it doesn't take up as much space on our website) .

3. Paste the widget code into your website and visitors can now see what has been observed on that property and be encouraged to add their own observations through iNaturalist.org (see an example).

4. Create a Collection Project – *Go beyond just making a place and create a project for your lands to better keep tabs on observations made there*.

   a. On the iNaturalist webpage, within 'Community' tab, click 'Projects', then click 'Start a Project' button. Click 'Get Started' with a collection project.

b. Give it a name, add an icon, and banner (follow instructions on page). To do multiple properties in a row, you could make a script for the project summary that could be pasted into each new project with just the location name being changed each time.

c. Fill in the place name your created earlier. We kept the default options to collect any observations made in the place.



5. Create an Umbrella Project – Same process as above except, instead of defining a place, you will look up each individual property project that you've created and would like added into the umbrella project. For instance we created a collection project for each of our preserves and have added most of these into our organization named-Umbrella Project. Example:
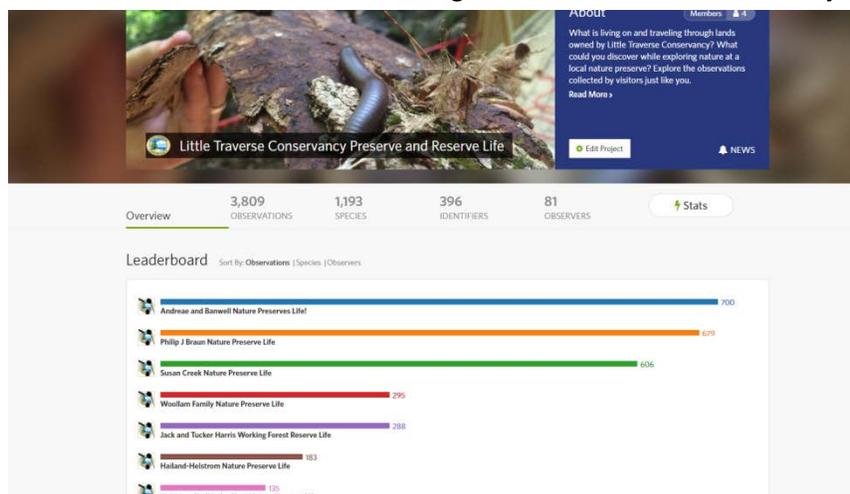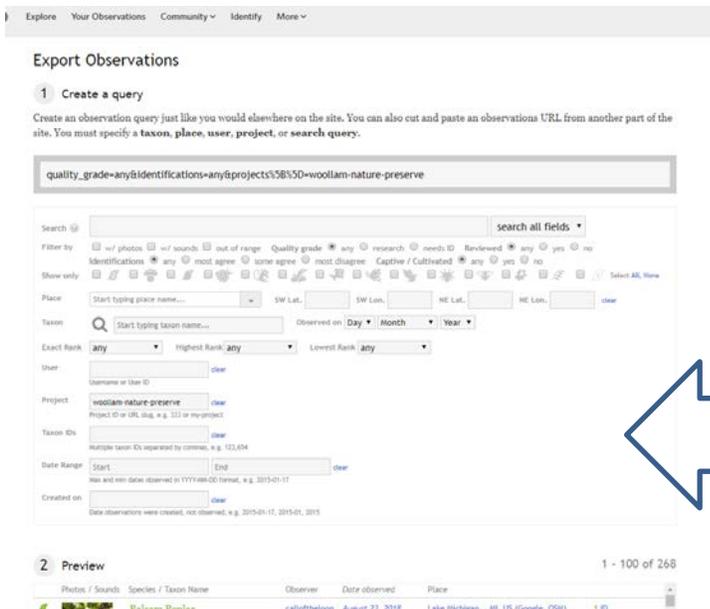
## II. **Identifying Conservation Priority Areas** *(assumes some GIS experience)*

**Note:** I want to credit Liana May at [Borealis Consulting, Inc](). with pioneering this methodology.

1. Export .csv table from project—From an existing collection project click 'Export Observations'
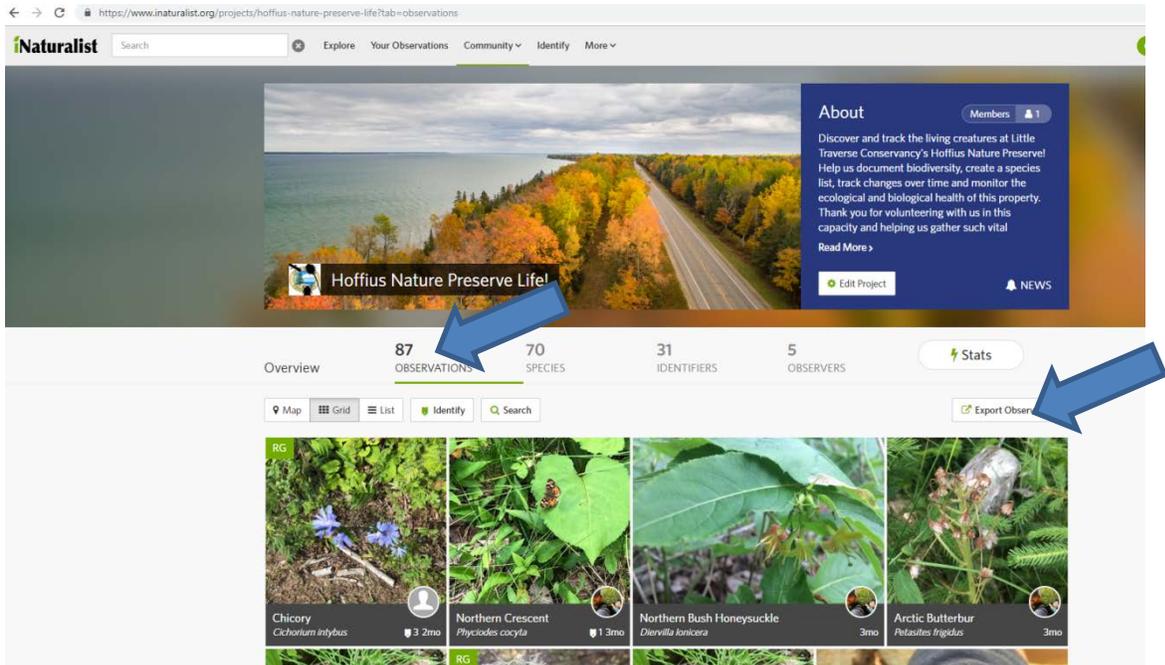


2. Choose the fields you want to query.



Can leave blank to get all records or select for a particular taxon, etc.

## Selecting field continued

**2  Preview**                                                                                    1 - 100 of 268

| Photos / Sounds | Species / Taxon Name | Observer | Date observed | Place | |
|---|---|---|---|---|---|
| 3 photos » | **Balsam Poplar**<br>*Populus balsamifera* | calloftheloon | August 23, 2018<br>04:01 PM EDT | Lake Michigan, , MI, US (Google, OSM) | 1 ID<br>Research Grade<br>Edit \| View » |
| | **Pitcher's Thistle**<br>*Cirsium pitcheri* | calloftheloon | August 23, 2018<br>03:19 PM EDT | 49740, Harbor Springs, MI, US (Google, OSM) | 2 IDs<br>Research Grade<br>Edit \| View » |

**3  Choose columns**

Choose the columns you want to export

### Basic (All | None)

- ☑ id
- ☑ observed_on_string
- ☑ observed_on
- ☐ time_observed_at
- ☐ time_zone
- ☐ out_of_range
- ☑ user_id
- ☐ user_login
- ☐ created_at
- ☐ updated_at
- ☐ quality_grade
- ☐ license
- ☐ url
- ☐ image_url
- ☐ sound_url
- ☐ tag_list
- ☐ description
- ☐ id_please
- ☐ num_identification_agreements
- ☐ num_identification_disagreements
- ☐ captive_cultivated
- ☐ oauth_application_id

### Geo (All | None)

Town, county, state, country fields based on coordinates. Analagous administrative levels will be used for observations where these place types do not apply. The private_* fields will only be included when using the user filter and you are the user, or when using the project filter and you curate the project.

- ☐ place_guess
- ☑ latitude
- ☑ longitude
- ☑ positional_accuracy
- ☐ private_place_guess
- ☑ private_latitude
- ☑ private_longitude
- ☑ private_positional_accuracy
- ☑ geoprivacy
- ☑ coordinates_obscured
- ☐ positioning_method
- ☐ positioning_device
- ☐ place_town_name
- ☐ place_county_name
- ☐ place_state_name
- ☐ place_country_name
- ☐ place_admin1_name
- ☐ place_admin2_name

### Taxon (All | None)

- ☑ species_guess
- ☑ scientific_name
- ☑ common_name
- ☐ iconic_taxon_name
- ☐ taxon_id

### Taxon Extras (All | None)

Note: these columns will slow down the generation of your export

- ☐ taxon_kingdom_name
- ☐ taxon_phylum_name
- ☐ taxon_subphylum_name
- ☐ taxon_superclass_name
- ☐ taxon_class_name
- ☐ taxon_subclass_name
- ☐ taxon_superorder_name
- ☐ taxon_order_name
- ☐ taxon_suborder_name
- ☐ taxon_superfamily_name
- ☐ taxon_family_name
- ☐ taxon_subfamily_name
- ☐ taxon_supertribe_name
- ☐ taxon_tribe_name
- ☐ taxon_subtribe_name
- ☐ taxon_genus_name
- ☐ taxon_genushybrid_name
- ☐ taxon_species_name
- ☐ taxon_hybrid_name
- ☐ taxon_subspecies_name
- ☐ taxon_variety_name
- ☐ taxon_form_name

### Observation Fields (All | None)

- ☐ field:abundance [acfor]
- ☐ field:associated species
- ☐ field:c-value
- ☐ field:eco-steward name?
- ☐ field:group size
- ☐ field:habitat
- ☐ field:how detected
- ☐ field:how many ?
- ☐ field:invasive
- ☐ field:map location
- ☐ field:michigan natural community
- ☐ field:preserve name?
- ☐ field:which field trip?

**4  Create export**

3. Add excel/csv table to ArcMap (GIS) via the add data button

Created by Derek Shiels, Little Traverse Conservancy, Derek@landtrust.org 10/23/2018

4. Add table of plant C values (For Michigan: downloaded an excel file of the Michigan Flora database from Michiganflora.net).

5. Perform a Join to the inventory table (using scientific names as join fields).
   (Right click the table layer in the contents window to get to the Join tool (or go to toolbox).

6. Export this table as new table and display it on the map (to be able to edit it).

7. Might need to fill in a few C-values manually by editing the layer if the scientific names in the databases do not all match.

8. Go to "Display X/Y Data…" (again, right click the layer in the contents window) for the inventory data and choose X and Y fields and change coordinates to WGS 84 if necessary.

9. Go Layer Properties, then the Symbology tab to color code the C-values field. There are different ways to display the data and one might be more helpful than another.

10. Examine the map for biodiversity hotspots! Example"
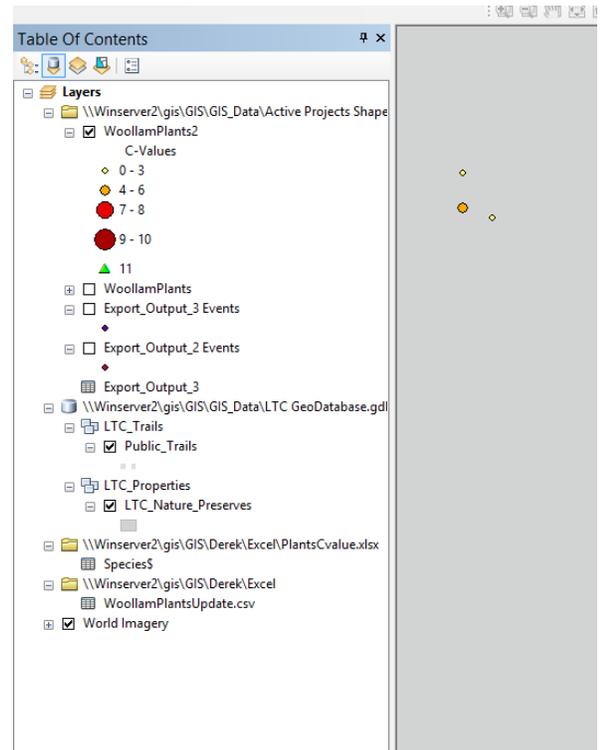


Examine maps of conservation priority areas!



42 | #RALLY2018        Credit: Liana May, Borealis Consulting, Inc.        LAND TRUST ALLIANCE

**III.      Other Random and Interesting Ideas**

- Engaging local experts, for an example, see this journal post by one of the iNaturalist Co-founders: https://www.inaturalist.org/journal/kueda/3799
- Hold iNaturalist community gatherings by inviting current iNaturalist users (look for those with the most observations made in your area) and potential new iNaturalist users.
- Carrie Seltzer works for iNaturalist and has good tips for new users on her profile page: https://www.inaturalist.org/people/carrieseltzer
- Look for images to use! Some images are copyrighted but many are open to non-commercial use. I usually send the photographer a quick note that I am using their photo, but that isn't necessary.
- Have any old species lists for properties that you own? Utilize the iNaturalist tool and network to see how many of those species can be found today? Challenge volunteers to help you track changes over time, like this call for help: https://www.inaturalist.org/journal/faerthen/904-need-help
- iNaturalist has a tool where you can create guides. I have little experience with these yet…
- and many more, I am sure…


Happy exploring and enjoy making discoveries!