

Minnesota Biodiversity Atlas User Guide

I. SEARCH BY COLLECTION

II. SEARCH BY MAP

III. IMAGES:

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I. SEARCH BY COLLECTION:

1. Click on COLLECTIONS tab.
2. Select collections of interest by checking boxes By default all are checked. Click "uncheck."
3. Click the NEXT button on the right side of the page to bring up the Search Criteria page
4. Limit search results through taxon (wait for drop-down list), locality, coordinates, collector information, images only and/or types only.
5. Click the SEARCH button on the right side of the page.
6. Only some information is displayed; click FULL RECORD DETAILS on a record to view all information for that record. [This will pop up a new window].
7. See **DOWNLOAD DATA** to download information.

** Taxa results will show many synonyms

**When searching for names that have synonyms make sure you use both genus and species to yield results of both (e.g. Rhamnus frangula is a synonym of Frangula alnus: since Rhamnus sp. is not listed as a synonym of Frangula sp. in the taxon tree, searching for Frangula alone would not return Rhamnus records)

**The SPECIES LIST tab within the results will show the record taxa

**Info on criteria:

a. Taxonomic Criteria:

- i. Search by taxonomic names as high as the family level using the 'Any Name' search option [will provide taxa options for any rank]. Other options include, 'Family or Scientific Name', 'Family only', 'Scientific Name only', 'Higher Taxonomy' and 'Common name'.
- ii. For any option, choose your desired taxon from the dropdown list in the search bar. If the name isn't in the list – there are no specimens under that name.
- iii. Note: running the search without picking from the dropdown list will not run the search correctly. You will likely end up with all records in the collection(s).

II. SEARCH BY MAP:

1. Click the Map tab: This will open up a map interface in a new browser tab. Move around on the map by dragging and using the + and – symbols to zoom in or out.
2. You can use the square or circle tools to draw a shape encompassing your area of interest and/or...
3. Click the Open tab at the top left corner to enter search parameters.
4. By default the search will limit your results to 5000; you can change this if desired. Higher numbers could slow loading time substantially.
5. See Search by Collection for guidelines on criteria

6. De/select collections from the COLLECTIONS tab.
7. Edit map clustering in the MAP OPTIONS tab.
8. Color code results from separate collections or taxa; COLLECTIONS or TAXA LIST respectively
9. View record list from RECORDS tab or click individual dots on map.
10. To download, click Download CSV button or Download KML file button. See DOWNLOAD DATA for details.

III. IMAGES:

Browse Images

1. Click the IMAGES tab.
2. Filter images by: taxon, collection, country, state, photographer and/or tag.
 - a. To search for a tagged image, type in or select "Tags" in the search bar and choose a tag from the list presented. For example "Tags:pollen"
3. To download images run search through collections tab and see II. IMAGES: Download multiple Atlas images.

Viewing Large Image or image in new window/tab

1. From collections search: after clicking FULL RECORD DETAILS click the View Large Image link BELOW the thumbnail.

Download multiple Atlas images

1. Search the Atlas for the records of interest
2. Download specimen data in Symbiota format
3. Open the Darwin Core archive and images.csv file
4. Save a .txt file containing only the column "goodQualityAccessURI" (URLs of the **high-resolution images**)
5. Create a new folder, copy the .txt file the folder
6. Launch UNIX
7. Navigate to the folder
8. Execute the following UNIX command where URLs.txt is the name your file: `wget --no-check-certificate -i URLs.txt`

IV. DOWNLOAD DATA:

From collections search or map search

1. COLLECTIONS SEARCH: On the search results page click the button on the top right above the page and record numbers. [Looks like a yellow square with two excel-style tables and a red triangle]See 3.
2. MAP SEARCH: From Open/Records, click Download CSV button. See 3.
3. **Data usage guidelines are listed at the top: by downloading you confirm that you have read and agree to the general data usage terms (link to these). Additional terms may apply to individual collections
4. Choose either to retain a symbiota native structure or to convert to a Darwin core structure. The differences between the two can be viewed through the [i buttons]. The structure chosen will determine which fields will be present in the download and which headers they will be labelled under.
5. Under Data Extensions, you can choose to in/disclude determination history and image records in your download by checking or unchecking the respective boxes. If you choose

to download the image records, you must later choose a compressed ZIP file under the compression step.

6. **File Format:** Choose either to download your data as a comma delimited or tab delimited file by clicking the appropriate radio button.
7. **Character Set:** Choose to download your data with an ISO-8859-1(western) or a UTF-8(Unicode) character set.
 - a. Some data may not transfer perfectly depending on which you choose.
 - b. E.g. degree symbols may be converted to other characters like angstrom (Å). By default, UTF-8 is chosen.
8. **Compression:** If the record set you wish to download is particularly large and/or if you chose to include image records in an earlier step, it is recommended to download your data to a compressed zip file. Check or uncheck the box to respectively choose to or choose not to do this.
9. Click Download Data.

Frequently Asked Questions (FAQ):

Q: How can I contribute to the biodiversity atlas?

A: We are currently running a crowd-sourcing project through Zooniverse:

<https://www.zooniverse.org/projects/zooniverse/mapping-change> You can help us transcribe labels of specimens which will allow us to have digitally usable data for searches, including the map search. Check it out!

Q: The common name I'm looking for isn't in dropdown list - what do I do?

A: The list isn't an exhaustive list of all common names for every name. It's a work in progress and more names will be added here and there.

You also need to be specific. E.g. "maple" will not yield results, "Norway maple" will.

You can also grab the scientific name of interest from the web (e.g. Wikipedia) and search through that: "Scientific Name: Acer" (from the drop-down list) will show all maples!

Q: Who can I contact for help?

A: Katie Noren (nore0102@umn.edu)