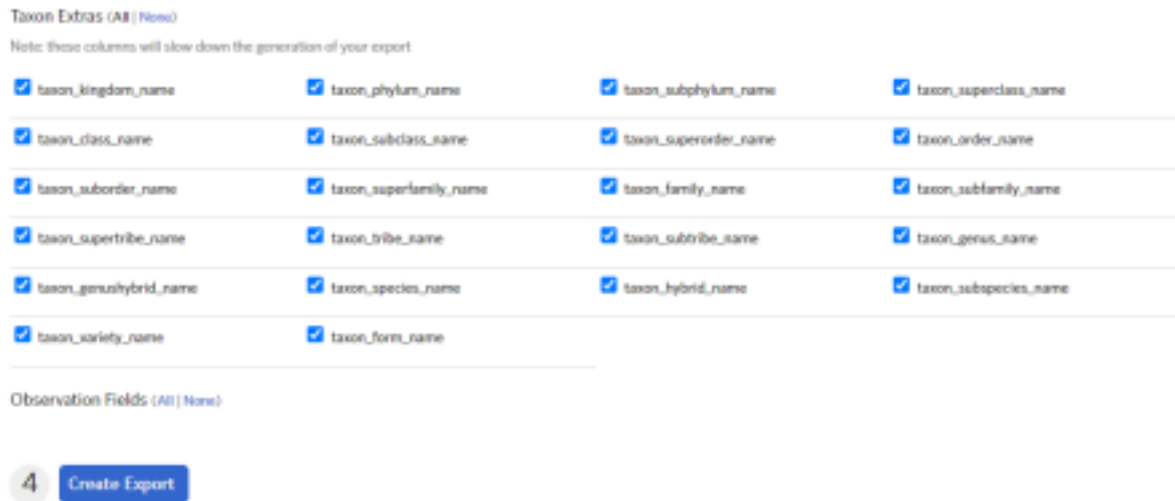


Manually Creating Point Shapefiles from iNaturalist Observation Data Tables

Obtaining the Data Table:

1. If you've already done this, you can skip to the next section. Otherwise, continue. Go to the iNaturalist project at <https://www.inaturalist.org/projects/van-cortlandt-park/biodiversity-project?tab=observations> and click on the "Export Observations" button.
2. Leave the first sections as default.
3. Scroll down to the "Taxon Extras" section and make sure to select all options like in image 1. Then select "Create Export."


Image 1:



4. It may take a very long time sometimes for the table to be exported. Select the "receive an email with your data" button and allow the export to load until it is ready.
5. When the export is ready in iNaturalist or has been emailed to you, download the table and save it as a .csv file.

This table has data on all of the current VCP iNaturalist Biodiversity Project species observations since the date of exporting. This process will need to be repeated to update the table with new observations in the future.

Adding Data to ArcMap:

6. Open ArcMap and add the csv data table of observations by selecting the add data button that looks like this. 
7. If you haven't created a folder connection to where you have saved the data table, you


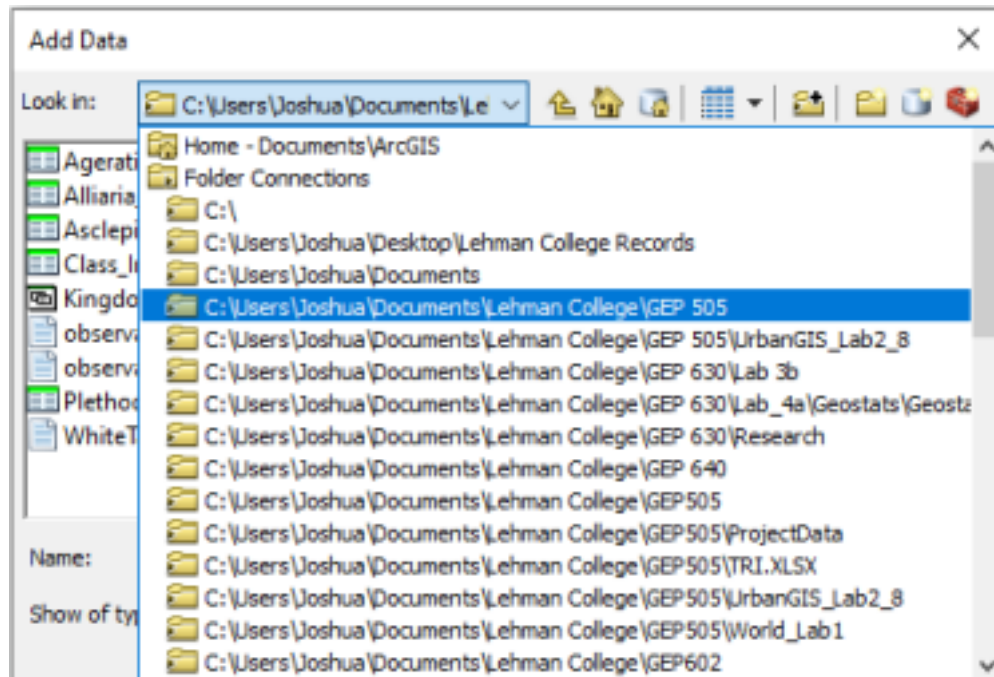


need to do so. Do this by clicking the “connect to folder”  button in the new pop-up window. Then direct to the folder location of the data table, select the folder, and click ok. Once a folder connection is set up, select the folder location from the dropdown menu in the Add Data pop-up window (as shown in image 2), then select the data table, and click add.

Image 2:

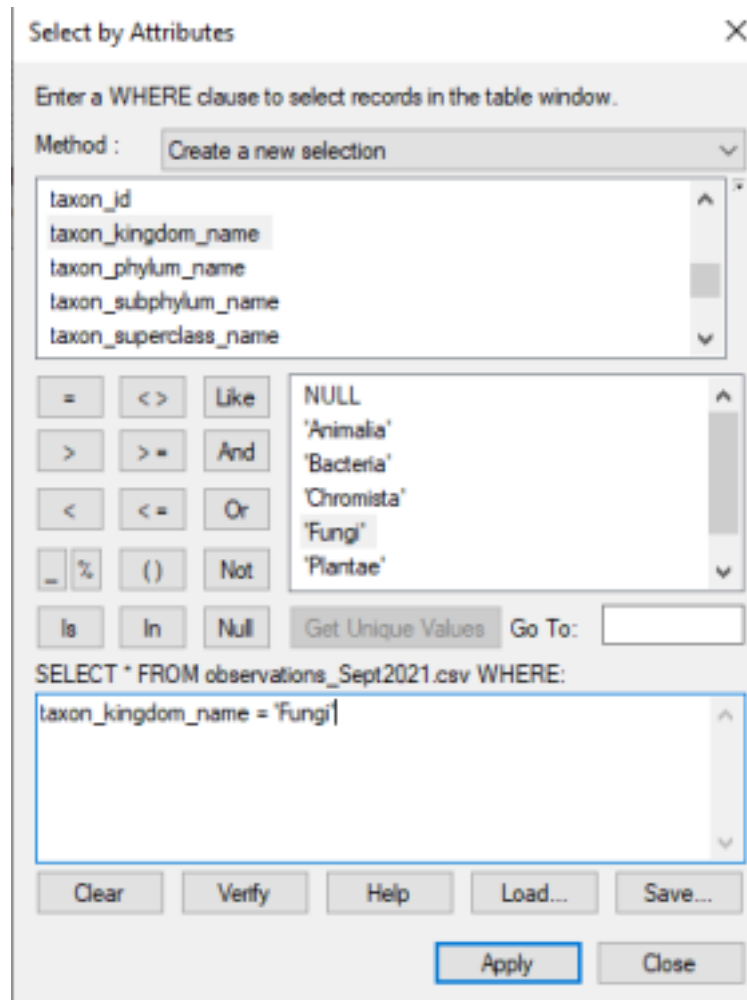



Querying the Data:


8. Right click on the newly added table in the table of contents, and click “open attribute table.”
9. Since the table has so much data, it is best to make sure it is all loaded. To do this, in the attribute table, click the “Move to end of table”  button at the bottom of the table. Wait for the loading pop-up to disappear before continuing.
10. In the attribute table, click the “table options”  button at the top of the table, then click “select by attributes...”
11. Now you will enter an equation that will select whichever species you need. As an example, these directions will work as if you are wanting to just show all fungi observations. First you will need to select the appropriate taxon (column in the data table). The column needed is “taxon_kingdom_name” in this case. Find this in the new Select by Attributes window by scrolling through the options in the top box and double clicking it once you found it. Next, click on the “=” sign. Lastly, click the “Get Unique Values” button. The data entries under the taxon_kingdom_name column will now be shown in the second box in the Select by Attributes window. Scroll through these options

to find “Fungi” and double click on it. The third box in the window should look like in image 3. Click the “Apply” button if it looks correct.

Image 3:



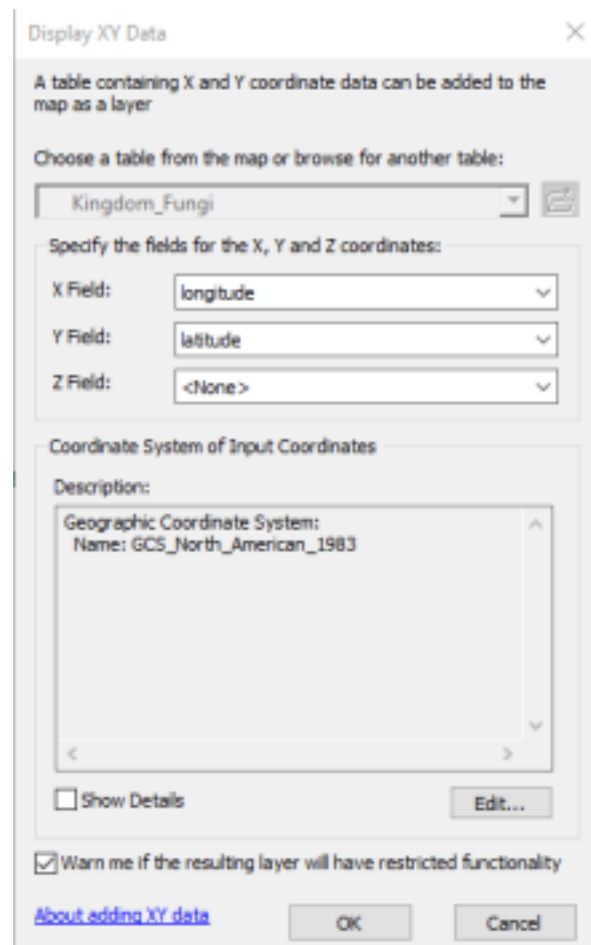
12. The attribute table will now have a certain number of observations selected, shown at the bottom of the table. You can close the Select by Attributes window now. 13. You will now make a new table with just the selected data. Click the “table options”  button again, then click “Export.”


14. In the new Export Data window, make sure the drop-down menu has “Selected records” selected. Define the output by selecting the folder icon , then choose a location to save the new queried table. You may need to add a folder connection like before if you are saving it to a different folder. Once you’ve selected the location, name it appropriately, select “dBASE table” in the save as type drop-down menu, then click “Save.” Now click “Ok.” Click “yes” on the pop-up asking if you would like to add the table to the map. You now have a table with all Fungi observation in the table of contents. You can close the attribute table window.

Transforming Table Data into Points:

15. Right click on the newly added table of fungi observations, then click “Display XY Data...”
16. You will next choose which columns in the table will have their data used as the x and y coordinates of each point. The X Field should be set to longitude, and the Y Field should be set to latitude. Leave the Z Field as its default. Under the Coordinate System of Input Coordinates box, click on “Edit...” Click the + sign next to “Geographic Coordinate Systems.” Then click the + next to “North America.” Then click the + next to “USA and territories.” Then select NAD 1983 and click “ok.” The “Display XY Data” window should look similar to the one shown in image 4 below. Click “OK” again if it looks good.

Image 4:



17. You should have an event layer now showing point locations for fungi observations. You now need to project it and save it as a shapefile. Open the Arc toolbox. Do this by clicking the  button near the top of ArcMap. Or you can get to Arc toolbox by clicking “Geoprocessing” and then clicking “ArcToolbox.”



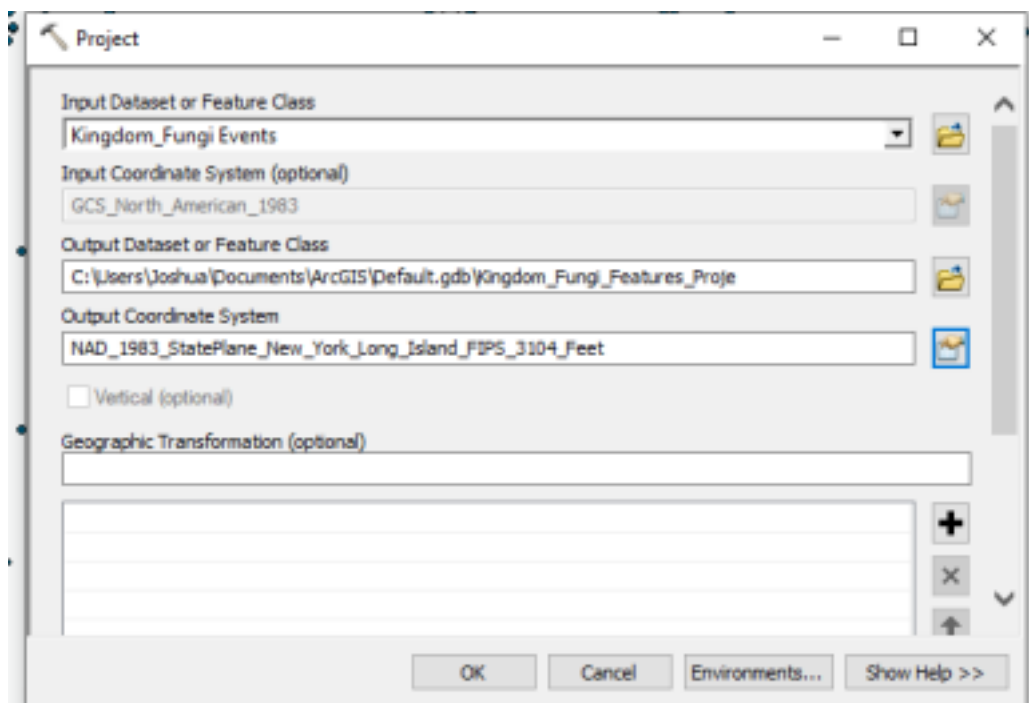

18. In the ArcToolbox window, click the + sign next to “Data Management Tools.” Then click the + next to “Projections and Transformations.” Then double click on “Project.” 19. For “Input Dataset and Feature Class”, click the drop-down arrow and select the point Events layer. For the “Output Dataset or Feature Class” field, click on the folder icon  and chose a location to save and what to name the point shapefile like done before. Leave the “save as type:” field as the default. For the “Output Coordinate System” field, click on the  button. In the new “Spatial Reference Properties” window, follow this path to select a projection. Projected Coordinate System > State Plane > NAD 1983 (US FEET). Then scroll down until you find NAD_1983_StatePlane_New_York_Long_Island_FIPS_3104_Feet. Select it and then click “OK.” The Project window should now be similar to the one in image 5 below. Click on “OK” again if it looks good.

Image 5:



20. You now have projected the observation points and saved it as a shapefile. You can delete the Events layer from the Table of Contents and add the projected shapefile instead by clicking on the add data button  and navigating to the folder where you just saved the projected point shapefile.