

OPENING AND TROUBLESHOOTING GEOREFERENCED LOCALITY DATA IN ARCMAP

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1. When opening ArcMap, select an appropriate map from its file on the computer. To get a map after ArcMap has been open for a while, click the Add Data Tool (yellow diamond with + sign in it on the toolbar). Then select a map from the appropriate file.

Example:

Click Add Data Tool (yellow diamond with + sign in it on toolbar)

Go to C:\GIS\Data_Layers\world

Choose World Map.lyr

2. ArcMap is a finicky program, but rarely tells you what's wrong. For this reason, it is essential to follow some very simple rules while preparing your file of georeferenced locality data for input into ArcMap. First, make sure that the file name (and the names of the folders that contain it) have NO SPACES. If you need to separate two words use underscores instead of spaces (e.g., "cybotes_localities.csv" rather than "cybotes localities.csv"). Second, be sure to close the .CSV file in Excel. ArcMap will not open a file if it's open in another program.
3. To import data into ArcMap: Go to the Tools menu and select "Add XY Data". Browse to the appropriate .CSV file. After selecting your file, "longitude" and "latitude" should appear in the X and Y fields. If nothing appears there is likely something wrong with your input file. Go back and do a bit of troubleshooting to make sure you don't have data out of place or problematic characters (e.g., spaces or dashes) in your file or file name. In the Description Field the coordinate type can be selected after clicking Edit. Do this only if you know that all of your data points are in one format (specifically WGS84). After you've completed this step, your datapoints should appear as a new layer in your ArcMap file.
4. Once the data points are plotted in ArcMap, you can begin looking for obvious possible problems. The most commonly observed problems are:
 - (1) Datapoints that are way outside the expected range of your species (e.g., A Cuban species plotted in Africa). To find these datapoints you may need to zoom to the extent of your point locality data layer. These types of problems are generally due to missing minus signs or other basic errors with georeferencing and transcription of the data.
 - (2) Datapoints that are outside the range of the species, but not dramatically so. This often results from low resolution georeferencing efforts or taxonomic changes.
 - (3) Datapoints that are in the ocean. This is a common result from low resolution georeferencing efforts.
5. Once you've plotted your datapoints in ArcMap it is important to remember that you cannot move the source file without losing this data in ArcMap.