

## SERNEC – TCN Barcoding protocol

Draft **2015-04-01** (based on protocol followed by Marshall University written by Emily Gillespie)

1. **Locate** the starting point or where the last barcoding was carried out.
  - a. Some collections may be starting beginning with the ferns, then the gymnosperms, and then the angiosperms, while other collections may have a different sequence.
  - b. Be sure to consult with the curator of your collection in order to be sure that you are aware of the specific process that is being follow for the SERNEC – TCN project.
2. **Pull** the next family/genus/species and/or geographic folder that has not been barcoded.
3. **Examine** *each* specimen to find the state and taxon you are looking for. If it is in the study area put it to one side (Figure 1). Note that the following states are included within the project scope; Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia and West Virginia. If it is outside the study area, put it to another side.

Pay special attention to the following:

- a. Just because the herbarium where the specimen originated is in a particular state, doesn't mean the specimen was *collected* in that state. The collection where the specimen originated is often written at the top of the label. Be sure to locate the state in which the specimen was *collected*.
  - b. Specimens may have handwritten labels so read carefully.
  - c. Specimens may have the state name abbreviated with two or even four letters while some write out the names in full.
  - d. If there is not a county and state on the label, then put the specimen aside and consult the curator as to whether the specimen should be imaged or not.
4. Apply a **barcode** to each specimen to be photographed.
    - a. Use the barcodes exactly in numerical order. Most barcode start with the collection code followed by the number with leading zeros (e.g., MUHW0001).
    - b. Be sure not to skip any barcodes. It is very important to use them in sequential order.
    - c. Don't touch the barcode more than absolutely necessary as this could cause the adhesive to become less sticky. Touch just on one corner if possible.
    - d. Apply the barcode a few millimeters in from the right top edge. If there is not space on the top right edge, move it toward the middle of the top edge.

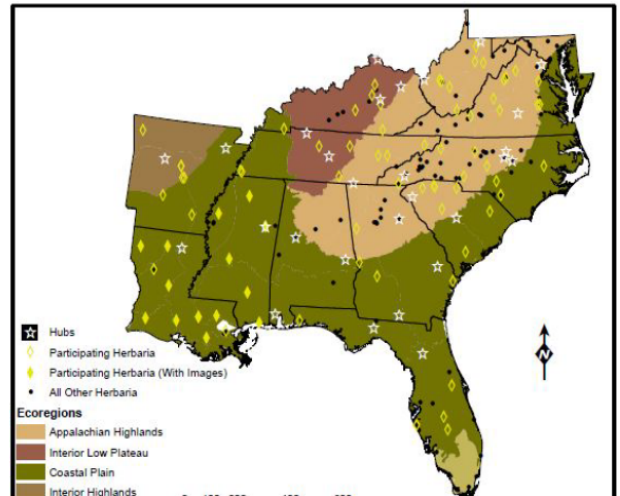


Figure 1: Map of SERNEC states

- e. Press on the barcode firmly to make sure it sticks well. Do this against a hard and flat surface such as a table-top. Be sure not to press against other specimens, which could cause serious damage to the specimens.
  - f. In the event that you can't use a barcode for any reason, stick or tape it to a piece of paper. Be sure to write the date, your name and the reason that it could not be used.
5. **Queue** up specimens for imaging.
- a. Put the selected southeastern specimens to be imaged in the designated folder.
  - b. It is a good idea to label the folder with to indicate which taxa are contained within it and the your name and date.
  - c. Place the folder in the designated area (cart, cabinet or shelf) where specimens are queue up specimens for imaging.
  - d. Keep the folders in exactly the same order to facilitate accurate re-shelving. They will also be photographed exactly in this order.
6. **Return** the folder(s) containing the non-southeastern specimens.
- a. Return the specimens to their exact shelf in the cabinet where you found them.
  - b. Be sure not to put too many specimens on a shelf, as we will eventually need to add the imaged specimens back into the original folder.