Plant Taxonomy (PBIO 4650L/6650L)

Plant Collection –Spring 2011

Plant Collection:

* All students are required to submit a plant collection on the final day of lab (4/28 or 4/29) according to the following designations:
  + Graduate students (and Honors Undergraduate students) – Collections will comprise 50 species, representing 30 families, no more than 15 of which may be woody species (i.e. trees, shrubs and woody vines).
  + Undergraduate students – Collections will comprise 20 species, representing at least 12 families, no more than 6 of which may be woody species (i.e. trees, shrubs and woody vines).
* Each specimen will be worth 2 points each. Points will be assigned primarily based upon Identification and Documentation (Labels), although quality and presentation of pressed specimens will also be assessed and subsequent point reductions will be left to the T.A.’s discretion.
* A list of plants in the collection, arranged alphabetically by family and genera within family is to be submitted with the collection, which is arranged in the same order as the list regardless of collection number (see below).

Field Book:

* Each student should maintain a field notebook in which to record label information including date, specific location, collection number (i.e. the sequential order in which a particular plant was collected), habitat and any other pertinent information which may not be evident from the pressed specimen (e.g. flower color, smell, height etc…)
* Field notebooks are to be submitted with the collection.
* It is imperative that field notebooks be kept up to date (i.e. you should document each plant as you collect) and thoroughly detailed as you will need this information for your labels (see example labels at the end of this handout for appropriate documentation procedures).

Plant Press and Drier:

* Plant presses may be checked out from the Herbarium (see T.A.); however, final grades will not be issued until the press, ventilators and blotters are returned.
* To access the plant drier, plan to bring your filled press to lab or arrange a time with your T.A.
* All presses must be labeled with a tag containing your name and the date it was placed on the drier. Unlabeled presses will be removed from the drier by the Curator or Collections Manager.
* Plants generally require 3 days to dry. Due to limited drier space, presses left on the drier longer than 3 days will be removed by the Curator or Collections Manager.
* Do not, under any circumstance, leave your filled press or your pressed specimens in the lab. This attracts insects. You will be provided with a box for you to submit your collections in.

Specimen labels:

* Follow the instructions on the following page to type your labels. Do not be creative. All Herbarium specimen labels adhere to a general format which you should utilize. Failure to do so may result in forfeiture of points for that specimen.
* Plants shall be pressed and submitted between sheets of newspaper (I recommend Flagpoles) with a neatly trimmed, typed collection label inserted into each specimen. Do not tape or staple your labels to the newspaper.
* For each specimen, the collection number, collection date, species name (genera and species), page number in Radford et al., as well as your name should be written on the outside edge of the newspaper. Your T.A. will demonstrate the correct procedures.

Identification:

* Plants are to be keyed and identified to species (and variety when applicable) using the *Manual of the Vascular Flora of the Carolinas* (Radford et al., 1969) and cross referenced using Alan Weakley’s on-line flora of the Southeast for family specifications. Weakley’s flora is available at: <http://www.herbarium.unc.edu/flora.htm>.
* In the event plant families differ according to the above referenced floras, and for the purposes of your labels, Weakley’s flora of the Southeast should take priority (for family names only).
* Accuracy in identifications is important. Your T.A. will assist if you need help identifying a plant specimen. Please do not hesitate to ask for help, but do not wait until the last minute to make your collections.
* You are encouraged to use the teaching collection in the lab room to verify your identifications. You are not allowed to use the main Herbarium to identify plants unless you make prior arrangements with your T.A.

Collecting and Pressing:

* Enough plant material should be collected and pressed to fill a herbarium sheet.
* Specimens should include fertile material (flowers and/or fruit) along with vegetative portions of the plant. Failure to do so will result in a loss of points for that specimen, regardless of identification.
* Collections may not include cultivated species.
* Plants are not to be collected on campus or in city, county, state or national parks.
* Your T.A. will demonstrate correct pressing procedures during lab.
* There will be at least two optional collecting trips led by T.A.s to a high quality natural area to provide you with an opportunity to participate in a rudimentary inventory process. Trips will take place on either Saturdays or Sundays and transportation will be provided. More details will be provided later in the semester.