

BIOL 325, Plant Systematics, Fall 2012

Course Web: <http://herbarium.millersville.edu/325.php>

Required: Bring Rhoads & Block (2007), hand lens, and preparedness for the outdoors to every lab.

Lab quizzes: 50 pts

Lab final: 50 pts

Floristic Inventory Project: 50 pts

Lab Schedule

<u>Lab Topic</u>	<u>Notes</u>
Week 1: Aug 31 Intro, Inventory Project, Lab Skills	
Week 2: Sep 07 nymphaeids & magnoliids	
Week 3: Sep 14 ranunculids, proteids, & caryophyllids	
Week 4: Sep 21 rosids	
Week 5: Sep 28 rosids	
Week 6: Oct 05 end rosids, begin asterids	
Week 7: Oct 12 asterids	
Week 8: Oct 19 asterids	
Week 9: Oct 26 monocots	
Week 10: Nov 02 monocots	Floristic Inventory Project Due
Week 11: Nov 09 monocots	
Week 12: Nov 16 pteridophytes	
Week 13: Nov 23 T-Day Recess	No lab this week
Week 14: Nov 30 Gymnosperms	
Week 15: Dec 07 Lab Final Exam	

Floristic Inventory Project

Your job is to make a collection and preparation of 10 herbarium specimens (to total 10 separate species) from wild plants. 5 of these must be from Millersville, with our collective goal of conducting the first inventory and mapping of the Borough's wild flora. The other 5 specimens can be from any wild area in the world. There can be no collections from the MU Bush or from a population that we identified to species together as a class, such as during a lab. Also, if you stray off of campus, you may not collect on private property without the permission of the owner. The project is worth 50 pts and all materials (the physical, mounted specimens and their mapping on www.wikiplantatlas.org/millersville/, hereon as WPA) are due by the start of lab on Friday, Nov 2 (late projects deducted 10% per 24 hr period late). For the five specimens from any wild source, if you collect outside of Millersville, you will want to use the Plants of PA Community Atlas at www.wikiplantatlas.org/pawoodies.

A. Important Notes regarding Academic Honesty:

1. Work to identify these alone.
2. Do not team up with others to collect the "same" things. That is, you can go out into the field with a classmate as a travel companion, but then you cannot collect the same species from those localities, and you cannot help each other with the identifications.
3. Do not collect any plant from a garden or otherwise from cultivation and try to pass it off as something you found wild.

B. Important Procedural Notes:

1. You will not get credit for plants collected within 6 m of a trail or for collecting the only plant in a population (environmentally responsible collecting is important).
2. You must keep a notebook that describes all necessary information and this information must be taken at the time of collection. Your memory is not good enough otherwise and the Herbarium does not want specimens with poor or faulty information recorded about them.
3. Your newspaper sheets should be labeled with your name and collection number (minimally) in the lower right corner on the outside so I can see them. Otherwise I will not accept them for drying.

C. Each specimen is worth 5 pts as follows:**1. Wiki-Plant-Atlas Entry (2 pts)**

- a) *Accuracy of pushpin placement
- b) *Completeness of information (including DBH for trees or tall shrubs)
- c) *Accuracy of data entry. Must also match the information on the herbarium specimen label.

2. Herbarium Specimen (3 pts; unmounted, unlabeled or not dry glue/specimens receive no credit).

- a) *Is the specimen fertile?
- b) *Is the label in the lower right corner, fully adhered, and on archival acid-free paper?
- c) *Does the label contain all information for all fields requested from WPA? Follow the format and instructions for making labels in WPA user's manual. Use the template file labels.doc linked from the manual. Once you have prepared all of your labels using this file, rename it with your last name as follows: smith.doc, and then come by my office hours with the file on flashdrive in order to print them onto acid-free paper. The safest, latest date to do this are my office hours on Tuesday, Oct 30 in order to have them for mounting such that the specimens and glue are dry by the Friday, Nov. 2 (1 pm) due date.
- d) *Is the specimen sufficiently glued or otherwise adhered to the herbarium sheet? Woody stems will take more glue or thread on thick stems.
- e) *Was the specimen dried properly in a press (i.e., not wrinkled, etc.)?
- f) *Does the specimen fit the sheet (it should not hang-off of the sheet)?
- g) *Is the specimen properly identified to family, genus and species?
- h) *Did you show care to have both upper and lower leaf surface displayed?
- i) *For herbs: were roots collected?
- j) *Did you show care to show the flowers (multiple flowers, for flowers greater than 5 mm diam have one of which is partially dissected)?

3. Fieldbook Check (0-5 pt deduction): I reserve the right to ask for and check through your field notebook and to deduct up to 5 points if it is not complete.