

Botany 400 – Plant Systematics
Potential questions for Exam 1

1. What are the three main parts of "systematics"? What are some of the goals of systematics (read Daly et al. paper)?
2. What are the 3 parts of a scientific name? What steps do you need to take to publish a new species name? What is synonymy? What is the type method? Why is naming species important and potentially derisive (read Payne paper)?
3. What are the 3 main types of classification systems, and how are they different? How has evolutionary theory been incorporated into classification systems? What did Bessey contribute to modern phylogenetic classification systems? What is the basic structure of the APG system of classification?
4. What are the basic parts of the flower? How have they been modified over time? What is the "foliar" theory of the flower?
5. What is the pollen, leaf, floral evidence for when and where angiosperms evolved? What does molecular phylogenetics indicate about the early origin of flowering plants?
6. What does recent morphological studies suggest about the first angiosperm (read Saquet et al. paper)?
7. What comprises the "basal angiosperms" and what features do many of them possess? Know the required families - be able to match family with specific vegetative, floral, fruit, etc. features discussed in lecture/lab.

Amborellaceae, Nymphaeaceae, Magnoliaceae, Annonaceae, Aristolochiaceae

8. What comprises the "basal eudicots" or ranunculids? Know the required families - be able to match family with specific vegetative, floral, fruit, etc. features discussed in lecture/lab.

Ranunculaceae, Berberidaceae, Papaveraceae