

Lab 06 - Asterids, part 2

**I. Families to Know on Sight (no keying allowed for lab quizzes or final)**

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Asteraceae or Compositae (p. 874)

- Small to large herbs (shrubs)
- Lvs alternate to opposite, entire to toothed.
- Head inflorescences subtended by involucre.
- Ca<sup>pappus</sup> Co<sup>[5]</sup> A<sup>5, connivent anthers</sup> G<sup>[2], inferior</sup>
- “ray” flowers (ray florets), “disc flowers (disk florets)”
- Head “receptacle” flat, convex, concave; surface can be chaffy.
- Involucral bracts variously formed and often diagnostic.
- Fruits achenes in head.

Summary: Small to large herbs with radiate (e.g., sunflower, aster), ligulate (e.g., chicory, dandelion), or discoid (e.g., groundsel, snakeroot) flower-like heads; infructescence a head of small achenes, often with persistent pappus as dispersal aid.

**II. Genera to Know (you can write your own key to genera and use on lab final)**

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**A. Asteraceae**

- 1) *Ageratina*
- 2) *Arctium*
- 3) *Echinacea*
- 4) *Chrysanthemum* (not in book)
- 5) *Cirsium*
- 6) *Helianthus*
- 7) *Solidago*

8) *Symphyotrichum* (formerly *Aster*)

9) *Tagetes* (not in book)

10) *Taraxacum*

11) *Verbesina*

12) *Cichorium*

**B. Caprifoliaceae**

13) *Lonicera*

**III. Some Economic Botany**

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Asteraceae (Compositae) includes many ornamentals and vegetable plants: *Helianthus* is the sunflower genus, which is the source of edible sunflowers as well as garden plants and cut flowers; *Cirsium* is an important genus because of its weeds called thistles; *Chrysanthemum* (chrysanthemums) and *Tagetes* (marigolds) are important as ornamentals; *Echinacea purpurea* is important as an herbal supplement and ornamental; *Cynara* is the artichoke genus; *Cichorium* contains chicory, an important weed as well as the source of roots that, when roasted, provide a substitute for or additive to French- and Louisiana-style coffee; *Lactuca* is the lettuce genus.