

Lab 05 - Asterids, part 2

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

1. Lamiaceae (p. 799)

Minimum Diagnostics: Aromatic herbs with quadrangular stems and opposite lvs, small to large bilabiate corolla; fruit a schizocarp of 4 nutlets.

- Aromatic herbs
- Leaves opposite, simple
- Stems quadrangular
- $Ca^{[5]} [Co^{[5], bilabiate} A^{2+2}] G^{[2], gynobasic\ style}$, flw strongly irregular (bilaterally symmetric)
- Fruit a schizocarp of 4 nutlets

2. Solanaceae (p. 844)

Minimum Diagnostics: Herbs or shrubs with conspicuous salverform to rotate corolla; fruit a berry (like a chili or tomato) or spiny capsule (e.g., jimsonweed).

- Poisonous herbs (most parts, if ingested)
- Leaves alternate, variously simple, lobed, to compound
- $Ca^{[5]} [Co^{[5], tubular\ or\ rotate} A^5] G^{[2]}$, flw regular (radially symmetric)
- Fruit a berry or spiny capsule

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

- Plantaginaceae
- 1) *Plantago*
 - 2) *Veronica*

- Lamiaceae
- 3) *Glechoma*
 - 4) *Mentha*
 - 5) *Ocimum*
 - 6) *Nepeta*

- Solanaceae
- 7) *Petunia*
 - 8) *Physalis*

- 9) *Solanum*
- 10) *Capsicum*

- Scrophulariaceae
- 11) *Buddleja*

- Apocynaceae
- 12) *Asclepias*
 - 13) *Vinca*

III. Some Economic Botany

- Solanaceae (the potato family) with many important members: *Solanum* includes tomato, potato, and eggplant; *Capsicum* includes the chili peppers; *Physalis* includes groundcherries and tomatillo; *Petunia* is famous for its garden flowers.
- Lamiaceae (the mint family) with many important herbs and ornamentals: *Mentha* is the mint genus; *Ocimum* is the basil genus; *Nepeta cataria* is the catnip; *Monarda* includes bergamont; *Thymus* is the thyme genus.