

Lab 7 - Rosids, part 2

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

1. Fagaceae (beeches, oaks, chestnuts)

Minimum Diagnostics: Trees with simple, toothed lvs and cupuled nuts.

- Trees (shrubs).
- Lvs alternate, simple, typically with teeth or lobes, lateral veins extending to margin.
- Fls. and infls. unisexual, very small with perianth wanting.
- Male catkins.
- Fruit a nut(s, 1-2) subtended by and sometimes enveloped by cupule.

2. Juglandaceae (walnuts, hickories, pecan)

Minimum Diagnostics: Trees with pinnate lvs and normal or modified drupes known as walnuts and hickories, respectively.

- Trees.
- Lvs alternate, pinnate.
- Fls. and infls. unisexual, very small with perianth wanting.
- Male catkins.
- Fruit a drupe (walnut) or modified drupe (with dehiscent exocarp/mesocarp).

3. Vitaceae (grapes, Virginia creeper)

Minimum Diagnostics: Lianas with woody tendrils, simple palmately veined or palmate lvs.

- Lianas with woody tendrils.
- Lvs alternate, simple and palmately veined (*Vitis*) or palmate (*Parthenocissus*).
- Inflorescences opposite the lvs.
- Fls. Bisex or unisex, regular, 5-merous, ovary superior.
- Fruit a dark purple berry.

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

A. Hamamelidaceae (p. 487)

1) *Hamamelis*

B. Fagaceae (p. 597)

2) *Fagus*

3) *Quercus*

C. Juglandaceae (p. 607)

4) *Juglans*

5) *Carya*

D. Betulaceae (p. 609)

6) *Betula*

E. Altingiaceae (p. 487)

7) *Liquidambar*

F. Anacardiaceae (p. 703)

8) *Rhus*

9) *Toxicodendron*

G. Simaroubaceae (p. 703)

10) *Ailanthus*

H. Vitaceae (p. 500)

11) *Vitis*

12) *Parthenocissus*

III. Some Economic Botany

- Fagaceae includes edible nuts from *Castanea* (chestnuts), *Fagus* (beechnuts) and, when prepared properly, *Quercus* (acorns). Additionally, the oaks in particular are economically important for their wood, and all genera are valued as ornamental trees.

- Juglandaceae includes edible nuts from *Jugans* (walnuts) and *Carya* (hickory nuts, pecans). Both genera are valued for their wood and as ornamental trees.
- Vitaceae includes *Vitis*, the source of table and wine grapes, as well ornamentals from the genus *Parthenocissus* (Virginia creeper, Boston-ivy).
- Hamamelidaceae includes the genus *Hamamelis*, the source of the ornamental witch-hazel shrub and the medicinal witch hazel extract from its stems.