BIOL 325 – Plant Systematics Laboratory Dr. Hardy

Lab 04 - Basal Eudicot Grade

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

1. Ranunculaceae

   Summary: Herbs to vines with simple, lobed, to dissected leaves with sheathing base with membranous margins; Perianth poorly differentiated, of variable merosity; Stamens many; Pistils several to many, each of a single carpel, often on a convex receptacle.

2. Papaveraceae

   Summary: Herbs (or shrubs) often with milky or colored sap. Lvs simple to pinnately much dissected with or without sheathing base with membranous margins. Perianth well differentiated between 2 caducous sepals and 4-8 showy petals; Stamens numerous or 6; Pistil one, of 2-many connate carpels and with a short to absent style.

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

A. Ranunculales

Ranunculaceae

1. Ranunculus (herbs)

2. Clematis (woody vines)

Berberidaceae

3. Berberis (shrubs)

4. Podophyllum (herbs)

Papaveraceae

5. Papaver (herbs)

6. Dicentra (herbs)

B. Proteales

Platanaceae

7. Platanus (trees)

C. Buxales

Buxaceae

8. *Pachysandra* (herbs)

III. Some Economic Botany

- *Papaver* is the source of poppy seeds, ornamental poppy flowers, and opiates.
- *Berberis* includes the widely cultivated (and invasive) Japanese barberry, *Berberis thunbergii*.
- *Platanus* includes a widely cultivated (street tree) species (American sycamore) and hybrid (London plane).
- Ranunculaceae includes many ornamentals, such as monkshood, larkspur, anemone, clematis and buttercups.
- Buxaceae includes the widely cultivated *Buxus* (boxwood) and *Pachysandra* (pachysandra)