

KEY BY FLOWER COLOR PLANT ID KEY (TO FAMILY AND SOMETIMES SPECIES) FOR ARCHES NATIONAL PARK

Key © Alicia Lafever

GYMNOSPERMS - EVERGREEN TREES

1. Leaves opposite or in whorls, evergreen scale-like leaves –
Cupressaceae (Cypress)
2. Leaves spirally arranged, needles in groups of 2 – **Pinaceae (Pine)**

GYMNOSPERMS - EVERGREEN SHRUBS

1. Leaves are reduced to small triangular teeth at joints, green jointed stems, shrublike – **Ephedraceae (Jointfir)**

DECIDUOUS TREES

Green flowers

1. Flowers borne in catkins, 0 petals, 0-4 sepals
 - A. flowers greenish, yellow; 0 petals, 0-4 sepals; Male (staminate) flowers and female (pistillate) flowers on the same tree. Staminate flowers have 0-4 sepals, pistillate flowers have no sepals; leaves alternate and simple –
Betulaceae (Birch)
 - B. flowers with 0 petals, 4 sepals; Male (staminate) flowers and female (pistillate) flowers on the same tree; leaves alternate and simple
Moraceae (Mulberry) – *Morus alba*
 - C. flowers with 0 petals, 4 sepals; Male (staminate) flowers and female (pistillate) flowers on different trees; leaves alternate and simple –
Moraceae (Mulberry) – *Morus rubra*
 - D. flowers greenish, yellow; 0 petals, 0 sepals; Male (staminate) flowers and female (pistillate) flowers on separate; leaves alternate and simple –
Salicaceae (Willow)
2. Flowers with 0 petals, 2-8 sepals
 - A. flowers with 0 petals, 4-5 greenish yellow sepals; leaves opposite and compound - **Aceraceae (Maple)**
 - B. flowers with 0 petals, borne in axillary clusters, yellow or yellow-green sepals (generally 4); leaves alternate and simple – **Elaeagnaceae (Oleaster)**
 - C. flowers with 0 petals, shrublike, 2 to 8 greenish, yellow sepals; leaves alternate and simple – **Fagaceae (Beech)**
 - D. flowers with 0 petals, 4 yellow to whitish lobed sepals; leaves opposite and

- compound - **Oleaceae (Olive)**
E. flowers with 0 petals; 4-8 green sepals; flowers borne in clusters; leaves alternate and simple - **Ulmaceae (Elm)**

White, Cream flowers

1. Flowers with 0 petals, 4 sepals
 - A. flowers with 0 petals, 4 yellow to whitish lobed sepals; leaves opposite and simple - **Oleaceae (Olive)**
2. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 united white petals, 5 united sepals; leaves opposite and simple - **Bignoniaceae (Catalpa)**
 - B. flowers with 5 white or pale pink petals, 5 sepals; leaves alternate and compound – **Fabaceae (Pea)** – *Robinia pseudoacacia*
 - C. flowers white to lavender or pink, flowers borne in elongated clusters, leaves scale-like, alternate – **Tamaricaceae (Tamarisk)**

Yellow flowers

1. Flowers with 0 petals, 2-8 sepals
 - A. flowers with 0 petals, 4-5 greenish yellow sepals; leaves opposite and compound - **Aceraceae (Maple)**
 - B. flowers with 0 petals, borne in axillary clusters, yellow or yellow-green sepals (generally 4); leaves alternate and simple – **Elaeagnaceae (Oleaster)**
 - C. flowers with 0 petals, shrublike, 2 to 8 greenish, yellow sepals; leaves alternate and simple – **Fagaceae (Beech)**
 - D. flowers with 0 petals, 4 yellow to whitish lobed sepals; leaves opposite and simple - **Oleaceae (Olive)**

Pink flowers

1. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 white or pale pink petals, 5 sepals; leaves alternate and compound – **Fabaceae (Pea)** – *Robinia pseudoacacia*
 - B. flowers white to lavender or pink and fragrant, flowers borne in elongated clusters, leaves scale-like, alternate – **Tamaricaceae (Tamarisk)**

Purple, Lavender flowers

1. Flowers with 5 petals, 5 sepals
 - A. flowers white to lavender or pink, flowers borne in elongated clusters, leaves scale-like, alternate – **Tamaricaceae (Tamarisk)**

SHRUBS

Green flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves alternate

- and simple – **Asteraceae (Sunflower)**
2. Flowers with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. flowers with 0 petals; 2 to 8 greenish, yellow sepals; leaves alternate and simple – **Fagaceae (Beech)**
 - C. flowers with 0 petals; 2-5 sepals; staminate and pistillate flowers; plants parasitic on branches of trees and shrubs; without chlorophyll; fragile-jointed with swollen jointed nodes; leaves leathery (often scale-like), opposite and simple - **Viscaceae (Mistletoe)**
 3. Flowers with 4-5 petals, 4-5 sepals -
 - A. flowers with 4 or 5 whitish green petals, distinct, or absent; 4 or 5 united sepals; flowers grow in clusters in the angle between the leaf and the stem; leaves alternate and simple; 3-8 feet tall – **Rhamnaceae (Buckthorn) *Rhamnus betulifolia***

Brown flowers

1. Flowers with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. flowers with 0 petals; 4 yellowish, brownish sepals; leaves alternate and simple – **Rosaceae (Rose) – *Cercocarpus***
2. Flowers with 4-5 petals, 4-5 sepals -
 - A. flowers with 4 or 5 whitish green petals, distinct, or absent; 4 or 5 united sepals; flowers grow in clusters in the angle between the leaf and the stem; leaves alternate and simple; 3-8 feet tall – **Rhamnaceae**

White, Cream flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves alternate and simple – **Asteraceae (Sunflower)**
2. Flowers with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves, branches, and fruits covered with dense long white hairs; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot) – *Ceratoides lanata***
 - B. flowers with 0 petals; 3 to 6 petaloid whitish sepals; leaves alternate and simple - **Polygonaceae (Buckwheat)– *Eriogonum bicolor*** (leaves basal/alternate, simple; flowers white to pink or rose); *Eriogonum corymbosum* (leaves alternate/basal, simple; flowers white, suffused with pink, red, or yellow); *Eriogonum leptocladon* (leaves alternate and simple, flowers yellow or white often suffused with pink); *Eriogonum microthecum* (leaves alternate and simple, flowers white or suffused with pink)
3. Flowers with 4 petals, 4 sepals
 - A. flowers with 4 distinct small white petals in terminal cymes; 4 very small sepals; leaves opposite and simple; not commonly seen. - **Cornaceae (Dogwood) - *Cornus sericea* var. *sericea***

- B. Flowers with 4 white clawed petals, 4 sepals; leaves opposite and simple -
Saxifragaceae (Saxifrage) – *Fendlera rupicola*
- 4. Flowers with 4-5 petals, 4-5 sepals -
 - A. flowers with 4 or 5 whitish green petals, distinct, or absent; 4 or 5 united sepals; flowers grow in clusters in the angle between the leaf and the stem; leaves alternate and simple; 3-8 feet tall - **Rhamnaceae (Buckthorn)** *Rhamnus betulifolia*
 - B. Flowers with 5 (4) white petals often smaller than the sepals, 5 sepals, mostly petaloid; leaves alternate and simple – **Saxifragaceae (Saxifrage)** – *Ribes inerme*
- 5. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 white, cream, yellow, or pink petals; 5 sepals; leaves alternate and simple – **Rosaceae (Rose)** – *Amelanchier, Holodiscus, Petrophytum, Physocarpos, Purshia*
 - B. flowers with 5 pink (rarely white) petals, sepals 5; leaves alternate and compound – **Rosaceae (Rose)** – *Rosa woodsii*

Yellow flowers

- 1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves alternate and simple – **Asteraceae (Sunflower)**
- 2. Flowers with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. flowers with 0 petals; 4 yellowish, brownish sepals; leaves alternate and simple – **Rosaceae (Rose)** – *Cercocarpus*
 - C. flowers with 0 petals, 4 yellow sepals; leaves opposite and simple – **Rosaceae (Rose)**– *Coleogyne ramosissima*
 - D. flowers yellow with 0 petals, 5 sepals; leaves alternate and compound – **Fabaceae (Pea)** – *Parryella filifolia*
 - E. flowers with 0 petals; 2 to 8 greenish, yellow sepals; leaves alternate and simple – **Fagaceae (Beech)**
 - F. flowers with 0 petals; 3 to 6 petaloid whitish sepals; leaves alternate and simple - **Polygonaceae (Buckwheat)**– *Eriogonum corymbosum* (leaves alternate/basal, simple), *Eriogonum leptocladon*
 - G. flowers with 0 petals; 2-5 sepals; staminate and pistillate flowers; plants parasitic on branches of trees and shrubs; without chlorophyll; fragile-jointed with swollen jointed nodes; leaves leathery (often scale-like), opposite and simple - **Viscaceae (Mistletoe)**
- 3. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 yellow petals; 5 sepals; leaves alternate and simple – **Anacardiaceae (Cashew)** – some *Rhus aromatica*
 - B. flowers with 5 yellow petals, 5 sepals; leaves alternate and compound – **Anacardiaceae (Cashew)** – *Rhus glabra*, some *Rhus aromatica*, and *Toxicodendron rydbergii* - rarely simple

- C. flowers with 5 white, cream, yellow, or pink petals; 5 sepals; leaves alternate and simple – **Rosaceae (Rose)** – *Amelanchier, Holodiscus, Petrophytum, Physocarpos, Purshia*
- 4. Flowers with 6 petals
 - A. Flowers with 6 yellow petals, usually 6 sepals; leaves alternate and compound – **Berberidaceae (Barberry)**

Pink flowers

- 1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 3-6 petaloid sepals; **Polygonaceae (Buckwheat)** - *Eriogonum bicolor* (shrub; leaves basal/alternate, simple; flowers white to pink or rose); *Eriogonum corymbosum*: shrubs or subshrubs; flowers white, suffused with pink, red, or yellow; leaves alternate/basal, simple; *Eriogonum leptocladon*: shrubs, leaves cauline, simple, woolly leaves; flowers yellow or white often suffused with pink; *Eriogonum microthecum*: shrubs, woolly leaves; leaves alternate and simple; flowers white or suffused with pink
- 2. Flowers with 5 petals, 5 sepals –
 - A. Flowers with 5 united petals; 5 small sepals; flowers tubular and flare open at the mouth; flowers solitary or in pairs; leaves oval, opposite and simple - **Caprifoliaceae (Honeysuckle)**
 - B. flowers with 5 white, cream, yellow, or pink petals; 5 sepals; leaves alternate and simple – **Rosaceae (Rose)** – *Amelanchier, Holodiscus, Petrophytum, Physocarpos, Purshia*
 - C. flowers with 5 pink (rarely white) petals, sepals 5; leaves alternate and compound – **Rosaceae (Rose)** – *Rosa woodsii*

Purple, Lavender flowers

- 1. Flowers with 5 petals, 5 sepals
 - A. 5 purple petals; 5 sepals; leaves narrow, opposite and simple - **Lamiaceae (Mint)** – *Poliomintha incana*

Red flowers

- 1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 3 to 6 petaloid whitish sepals; leaves alternate/basal and simple - **Polygonaceae (Buckwheat)**– *Eriogonum corymbosum*

SUBSHRUB

Green flowers

- 1. Flower with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple –**Chenopodiaceae (Goosefoot)**
- 2. Flowers with 4 petals
 - A. flowers with 4 lobed funnelform greenish-yellow petals, 4-8 lobed sepals, minute or lacking; leaves whorled and simple - **Rubiaceae (Madder)** – *Galium multiflorum*

Brown flowers

1. Flowers with 0 petals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. flowers with 0 petals; 3 to 6 petaloid brownish-whitish sepals; leaves alternate and simple – **Polygonaceae (Buckwheat)**– *Eriogonum jonesii*

White, Cream flowers

1. Flowers with 0 petals
 - A. flowers with 0 petals; 3 to 6 petaloid sepals – **Polygonaceae (Buckwheat)**– *Eriogonum jonesii* (leaves alternate, simple; brownish-whitish sepals); *Eriogonum corymbosum*: shrubs or subshrubs; flowers white, suffused with pink, red, or yellow; leaves alternate/basal, simple; *Eriogonum ovalifolium* (flowers white, cream, yellow or suffused with pink, red, or purple; woolly leaves; leaves basal and simple)
2. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 white to cream petals, 5 sepals; leaves opposite and simple – **Polemoniaceae (Phlox)** – *Leptodactylon watsonii*

Yellow flowers

1. flowers appear to be a single flower, but is composed of several flowers; ray flowers yellow or lacking; leaves alternate and simple – **Asteraceae (Sunflower)** - some *Gutierrezia*, some *Haplopappus*, some *Perityle*, some *Xlyorhiza*
2. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. flowers with 0 petals; 3 to 6 petaloid sepals;– **Polygonaceae (Buckwheat)**– *Eriogonum corymbosum* (shrubs or subshrubs; flowers white, suffused with pink, red, or yellow; leaves alternate/basal, simple); *Eriogonum ovalifolium* (flowers white, cream, yellow or suffused with pink, red, or purple; woolly leaves; leaves basal and simple)
3. Flowers with 3 petals, 5 sepals
 - A. flowers with 3 distinct petals, (the upper 2 pink or pink purple petals usually free, the lower one forming a yellow keel and often fringed, the petals are usually joined to the stamens; 5 distinct sepals, the 2 inner ones larger and often petaloid (the 3 outer sepals are usually green and the other inner ones are petal-like), flowers in racemes, several-flowered; milky stems; thorny; leaves alternate and simple – **Polygalaceae (Milkwort)** – *Polygala subspinosa*
4. Flowers with 4 petals
 - A. flowers with 4 lobed funnelform greenish-yellow petals, 4-8 lobed sepals, minute or lacking; leaves whorled and simple - **Rubiaceae (Madder)** – *Galium multiflorum*

Pink flowers

1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 3 to 6 petaloid sepals;– **Polygonaceae (Buckwheat)**– *Eriogonum corymbosum* (shrubs or subshrubs; flowers white, suffused with pink, red, or yellow; leaves alternate/basal, simple); *Eriogonum ovalifolium* (flowers white, cream, yellow or suffused with pink, red, or purple; woolly leaves; leaves basal and simple)
2. Flowers with 3 petals, 5 sepals
 - A. flowers with 3 distinct petals, (the upper 2 pink or pink purple petals usually free, the lower one forming a yellow keel and often fringed, the petals are usually joined to the stamens; 5 distinct sepals, the 2 inner ones larger and often petaloid (the 3 outer sepals are usually green and the other inner ones are petal-like), flowers in racemes, several-flowered; milky stems; thorny; leaves alternate and simple – **Polygalaceae (Milkwort)** – *Polygala subspinosa*
3. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 small typically pink, tubular united petals, 5 sepals; leaves appear clustered; leaves alternate and simple – **Boraginaceae (Borage)**: *Tiquilia*

Purple, Lavender flowers

1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 3 to 6 petaloid sepals; flowers white, cream, yellow or suffused with pink, red, or purple; woolly leaves; leaves basal and simple – **Polygonaceae (Buckwheat)**– *Eriogonum ovalifolium*
2. Flowers with 3 petals, 5 sepals
 - A. flowers with 3 distinct petals, (the upper 2 pink or pink purple petals usually free, the lower one forming a yellow keel and often fringed, the petals are usually joined to the stamens; 5 distinct sepals, the 2 inner ones larger and often petaloid (the 3 outer sepals are usually green and the other inner ones are petal-like), flowers in racemes, several-flowered; milky stems; thorny; leaves alternate and simple – **Polygalaceae (Milkwort)** – *Polygala subspinosa*

Red flowers

1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 3 to 6 petaloid sepals;– **Polygonaceae (Buckwheat)**– *Eriogonum corymbosum* (shrubs or subshrubs; flowers white, suffused with pink, red, or yellow; leaves alternate/basal, simple); *Eriogonum ovalifolium* (flowers white, cream, yellow or suffused with pink, red, or purple; woolly leaves; leaves basal and simple)

CACTUS

1. flowers with numerous petals; showy; red, pink, purple, or yellow; sepals and stamen; petaloid sepals; no leaves; spines – **Cactaceae (Cactus)**

SPOROPHYTES (Spore-bearing)

1. Stems typically hollow, jointed, ribbed longitudinally; leaves whorled, small, scalelike, microphyllous – **Equisetaceae (Horsetail)**
2. Plants with scaly or hairy, creeping rhizomes; leaves coiled in the bud forming fiddleheads, leaves simple or compound, often hairy or scaly - **Polypodiaceae (Fern)**

PARASITIC HERBS LACKING CHLOROPHYLL

1. Fleshy purplish, brownish, or yellowish white stems, leaves alternate, reduced and scalelike, 5 lobed united tubular purplish, reddish, or yellowish petals with an upper and lower lip, 5 lobed united sepals – **Orobanchaceae (Broomrape)**

GRASSES AND GRASS-LIKE HERBS (SOME OF THE MONOCOTS)

1. Leaves simple, linear, sometimes reduced to bladeless sheaths, stems can have edges (*Scirpus* has rounded stems); petals and sepals lacking or reduced to bristles; the spike of reduced flowers form a spikelet; grows in wet or moist soil – **Cyperaceae (Sedge)**
2. Stems not jointed; leaves sheathing, alternate or all basal; flowers with 3 petals, 3 sepals, membranous, greenish or brownish; stamens 6 (rarely 3), 1 pistil – **Juncaceae (Rush)**
3. leaves mainly basal, linear, sheathing at the base; flowers terminal spike; 3 greenish petals; 3 greenish or purplish sepals; the sepals and petals not well differentiated; perianth of 3+3 tepals; stamens commonly 6, 1 pistil; *Triglochin maritima* - perianth greenish-yellow – **Juncaginaceae (Arrowgrass)**
4. Leaves alternate, simple, 2-ranked, stems round, often with hollow internodes, swollen nodes; flowers individually small and inconspicuous; no petals, no sepals, typically 3 stamens (rarely 2 or 6); each flower has 2 bracts forming a spikelet – **Poaceae (Grass)**
5. leaves alternate, long, linear, flat, sheathing; flowers densely crowded in terminal spikelike inflorescences; perianth lacking (0 petals, 0 sepals), 2-5 stamens; unisexual, pistillate and staminate spikes look like a hot-dog-on-a-stick; fruits: achene or nutlet; semiaquatic or aquatic -**Typhaceae (Cattail)**

HERBS

Green flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves alternate and simple – **Asteraceae (Sunflower)**
2. Flowers with 0 petals, 0-8 sepals
 - A. flowers with 0 petals; 5 sepals; 3 conspicuous green or red to purple bracts; flowers in axillary clusters; leaves alternate and simple -**Amaranthaceae (Amaranth)** – *Amaranthus blitoides*

- B. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
- C. female (pistillate) flowers and male (staminate) flowers; 0 petals; 0-8 sepals; green, brown, white, or yellow; *Euphorbia fendleri*: leaves opposite and simple; other *Euporbiaceae*: flowers with 0 petals; sepals either 0 or 3 to 8 lobed; leaves alternate and simple - **Euphorbiaceae (Spurge)**
- D. flowers with 0 petals; 3 to 6 petaloid white, yellow, green, pink, or red sepals, small; some stems have swollen nodes; leaves alternate/basal and simple -**Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green), *Polygonum lapathifolium* (green, white, or pink), *Rumex hymenosepalus* (pink), and *Rumex venosus* (red)
- E. flowers with 0 petals; 5 whitish green sepals which come to a point; lance-shaped leaves; leaves alternate and simple – **Santalaceae (Sandalwood)**
- 3. Flowers with 3 petals, 3 sepals
 - A. flowers with 3 brownish, purple, green or yellowish green petals (free or united, one petal differing from the other two in form, size, and coloration, often forming a lip or spur), 180 degree twist in the flower causing the upper petal to look like the lower one; 3 sepals; sepals either green and sepaloid or colored and petaloid; leaves often sheathing, parallel veined; monocot; leaves alternate and simple – **Orchidaceae (Orchid)**
- 4. Flowers with 4-5 petals, 4-8 sepals
 - A. flowers with 4 lobed white to green petals marked with green dots; flowers solitary or in cymes; 4 lobed sepals; leaves in whorls of 4 and simple; white margins on the leaf edges - **Gentianaceae (Gentian)** – *Swertia albomarginata*
 - B. flowers with 4 lobed funnellform greenish-white or cream petals; 4-8 lobed sepals, minute or lacking; leaves whorled and simple - **Rubiaceae (Madder)** – *Galium triflorum*
 - C. flowers with 4 or 5 united tubular red, green, or pink or purple petals; 4 or 5 sepals, at least partially united; leaves alternate and simple – **Scrophulariaceae (Figwort)** - *Castilleja*, *Cordylanthus wrightii*
- 5. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 to numerous small (1/8" wide) pale greenish/white tubular partly united petals borne in clusters; 5 parted sepals; reddish stems; leaves opposite or whorled and simple – **Apocynaceae (Dogbane)** – *Apocynum cannabinum*
 - B. flowers with 5 united yellow, white, green, or pink; 5 sepals; petals and sepals are folded down; 5 erect, colored corona hoods on top; leaves opposite and simple - **Asclepiadaceae (Milkweed)**

Brown flowers

- 1. Flowers with 0 petals, 0-8 sepals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple – **Chenopodiaceae (Goosefoot)**
 - B. female (pistillate) flowers and male (staminate) flowers; 0 petals; 0-8

sepals; green, brown, white, or yellow; *Euphorbia fendleri*: leaves opposite and simple; other *Euporbiaceae*: flowers with 0 petals; sepals either 0 or 3 to 8 lobed; leaves alternate and simple - **Euphorbiaceae (Spurge)**

2. Flowers with 3 petals, 3 sepals
 - A. flowers with 3 brownish, purple, green or yellowish green petals (free or united, one petal differing from the other two in form, size, and coloration, often forming a lip or spur), 180 degree twist in the flower causing the upper petal to look like the lower one; 3 sepals; sepals either green and sepaloid or colored and petaloid; leaves often sheathing, parallel veined; monocot; leaves alternate and simple – **Orchidaceae (Orchid)**

White, Cream flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves simple, primarily basal in a rosette – **Asteraceae (Sunflower)**
2. Flowers with 0 petals, 0-8 sepals
 - A. female (pistillate) flowers and male (staminate) flowers; 0 petals; 0-8 sepals; green, brown, white, or yellow; *Euphorbia fendleri*: leaves opposite and simple; other *Euporbiaceae*: flowers with 0 petals; sepals either 0 or 3 to 8 lobed; leaves alternate and simple - **Euphorbiaceae (Spurge)**
 - B. flowers with 0 petals; 4-5 white, pink, or purple united tubular petaloid sepals; leaves opposite and simple – **Nyctaginaceae (Four O’Clock)**
 - C. flowers with 0 petals; 3 to 6 petaloid whitish, pinkish, or purplish sepals; leaves simple, primarily basal in a rosette - **Polygonaceae (Buckwheat)**– *Eriogonum gordonii*, *Eriogonum inflatum*, *Eriogonum wetherillii*
 - D. flowers with 0 petals; 3 to 6 petaloid white, yellow, green, pink or red sepals, small; some stems have swollen nodes; leaves alternate/basal and simple -**Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green), *Polygonum lapathifolium* (green, white, or pink), *Rumex hymenosepalus* (pink), and *Rumex venosus* (red)
 - E. flowers with no petals, 4-5 white petaloid sepals; leaves opposite and compound – **Ranunculaceae (Buttercup)** – *Clematis ligusticifolia*
 - F. flowers with 0 petals; 5 whitish green sepals which come to a point; lance-shaped leaves; leaves alternate and simple – **Santalaceae (Sandalwood)**
3. Flowers with 3 petals, 3 sepals
 - A. flowers with 3 large white petals, 3 white or green sepals; petals in multiples on stalk with flowers oriented in a downward direction; leaves basal and simple; leaves parallel veined; monocot – **Agavaceae (Agave)**
4. Flowers with 3-8 petals, 3 sepals
 - A. flowers with 3 to 8 small to medium white, pink, or purple petals oriented in an upward or outward direction; 3 sepals (commonly petaloid); leaves basal and simple; leaves parallel veined; monocot – **Liliaceae (Lily)**
5. Flowers with 4 petals, 4-8 sepals
 - A. flowers with 4 white, cream, yellow or purple petals; 4 sepals; leaves alternate and compound – **Brassicaceae (Mustard)**– some *Descurainia* (cream to yellow), and *Nasturium officinale*: white, rarely with purplish veins

- B. flowers with 4 white small to medium petals (not papery), 4 sepals, leaves basal and alternate; leaves simple, primarily basal in a rosette – **Brassicaceae (Mustard)** – *Draba cuneifolia*
- C. flowers with 4 white, yellow, pink or purple small to medium petals (not papery); 4 sepals; leaves alternate and simple – **Brassicaceae (Mustard)**
- D. flowers with 4 lobed white to green petals marked with green dots; flowers solitary or in cymes; 4 lobed sepals; leaves in whorls of 4 and simple; white margins on the leaf edges - **Gentianaceae (Gentian)** – *Swertia albomarginata*
- E. flowers with 4 white, yellow, or pink large papery clawed petals; 4 sepals; lower leaves can be opposite or basal; leaves alternate and simple- **Onagraceae (Evening-Primrose)**
- F. flowers with 4 united tiny white petals, 4 united tubular sepals; leaves simple, primarily basal in a rosette - **Plantaginaceae (Plantain)**
- G. flowers with 4 lobed funnellform greenish-white or cream petals; 4-8 lobed sepals, minute or lacking; leaves whorled and simple - **Rubiaceae (Madder)** – *Galium triflorum*
- 6. Flowers with 4-5 petals, 4-5 sepals
 - A. flowers with 4 or 5 united lobed white to pink or rose petals in cymes; flowers tubular expanding at end, 4 or 5 lobed sepals; leaves opposite and simple – **Gentianaceae (Gentian)** – *Centaurium*
- 7. Flowers with 5 petals, 5 sepals (0-5 sepals in Apiaceae)
 - A. flowers with 5 to numerous small (1/8" wide) pale greenish/white tubular partly united petals borne in clusters; 5 parted sepals; reddish stems; leaves opposite or whorled and simple – **Apocynaceae (Dogbane)** – *Apocynum cannabinum*
 - B. flowers with 5 bluish-white tube-shaped partly united petals borne in terminal clusters; 5 parted sepals; leaves alternate and simple – **Apocynaceae (Dogbane)** – *Amsonia tomentosa*
 - C. flowers with 5 united yellow, white, green, or pink; 5 sepals; petals and sepals are folded down; 5 erect, colored corona hoods on top; leaves opposite and simple – **Asclepiadaceae (Milkweed)**
 - D. flowers with 5 united small yellow, pink, white, or red, or purple petals; 5 sepals; leaves alternate and simple (sometimes lower leaves opposite in *Cryptantha*) – **Boraginaceae (Borage)**- *Cryptantha*, *Cynoglossum*, *Heliotropium*, *Lappula*, *Lithospermum*
 - E. flowers with 5 white or pink petals; 5 sepals, 4-10 stamens; leaves opposite and simple – **Caryophyllaceae (Pink)**
 - F. flowers with 5 united funnellform white, blue, lavender, purple or rose petals; 5 separate sepals; leaves alternate and simple - **Convolvulaceae (Morning Glory)**
 - G. flowers with 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united; 5 sepals united; leaves alternate and compound – **Fabaceae (Pea)**
 - H. flowers with 5 united purple, blue, or white petals, not papery; 5 united sepals; flowers grouped in S-shaped cymes, rarely solitary; leaves alternate

and simple (the lower leaves sometimes opposite in *Phacelia*) –

Hydrophyllaceae (Waterleaf)

- I. flowers with 5 united blue, purple, or white petals; 5 sepals; leaves opposite and simple – **Lamiaceae (Mint)**–*Hedeoma drummondii*, *Marrubium vulgare*
- J. flowers with 5 united tubular white (or less often bluish or pink) petals; 5 lobed sepals, flowers in cymes; leaves opposite and simple – **Polemoniaceae (Phlox)** - *Phlox austromontana*
- K. flowers with 5 united petals; 5 lobed sepals; flowers are funnellform, scarlet, lavender, blue, white, yellow, or pink; leaves alternate and simple – **Polemoniaceae (Phlox)** - *Gilia*
- L. flowers with 5 white or cream (less commonly pink or blue tinged) petals with spurs colored like the sepals; 5 sepals; leaves basal and alternate, compound – **Ranunculaceae – Buttercup** - *Aquilegia micrantha*
- M. flowers with 5 united tubular white to violet or yellowish funnellform petals (some are ill-scented and open in the evening); 5 lobed tubular sepals; large leaves; leaves alternate and simple– **Solanaceae (Potato)**
- N. flowers with 5 petals; 5 sepals or lacking; petals can be yellow, white, or purple; petals and sepals are distinct; individual flowers are small and grouped in compound umbels; leaves basal and compound – **Apiaceae (Carrot)**

Yellow flowers

- 1. flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves basal in a rosette and simple; flowers yellow, leaves opposite and simple (*Flaveria*, *Thelesperma*); flowers yellow, leaves opposite and compound (*Bidens frondosa*); or leaves alternate and simple – **Asteraceae (Sunflower)**
- 2. Flowers with 0 petals, 0-8 sepals
 - A. flowers with 0 petals; 2-5 small green, yellow, or brown sepals; leaves bluish, alternate and simple –**Chenopodiaceae (Goosefoot)**
 - B. female (pistillate) flowers and male (staminate) flowers; 0 petals; 0-8 sepals; green, brown, white, or yellow; *Euphorbia fendleri*: leaves opposite and simple; other *Euporbiaceae*: flowers with 0 petals; sepals either 0 or 3 to 8 lobed; leaves alternate and simple - **Euphorbiaceae (Spurge)**
 - C. flowers with 0 petals; 3 to 6 petaloid white, yellow, green, pink or red sepals, small; some stems have swollen nodes; leaves alternate/basal and simple -**Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green); *Eriogonum inflatum* (leaves simple, primarily basal in a rosette, flowers whitish, yellow); *Polygonum lapathifolium* (green, white, or pink), *Rumex hymenosepalus* (pink), and *Rumex venosus* (red)
- 3. Flowers with 2-5 petals, 5 sepals
 - A. Flowers with 2 to 5 yellow petals, 5 green sepals, leaves basal and alternate; leaves simple, primarily basal in a rosette – **Ranunculaceae – Buttercup** – *Ranunculus testiculatus*
- 4. Flowers with 3 petals, 3 sepals
 - A. flowers with 3 brownish, purple, green or yellowish green petals (free or

- united, one petal differing from the other two in form, size, and coloration, often forming a lip or spur), 180 degree twist in the flower causing the upper petal to look like the lower one; 3 sepals; sepals either green and sepaloid or colored and petaloid; leaves often sheathing, parallel veined; monocot; leaves alternate and simple – **Orchidaceae (Orchid)**
5. Flowers with 4 petals, 2-4 sepals
 - A. flowers with 4 white, yellow, or pink small to medium petals (not papery); 4 sepals; leaves alternate and simple – **Brassicaceae (Mustard)**
 - B. flowers with 4 white, cream, or yellow petals; 4 sepals; leaves alternate and compound – **Brassicaceae (Mustard)**– some *Descurainia* (cream to yellow), and *Nasturtium officinale* (white)
 - C. flowers with 4 yellow petals; 4 sepals; leaves alternate and compound – **Capparaceae (Caper)**
 - D. Yellow flowers with 4 petals, the 2 outer ones spreading at the apex, the 2 inner ones united; 2 sepals; leaves basal and alternate, compound– **Fumariaceae (Bleedingheart)**
 - E. flowers with 4 white, yellow, or pink large papery clawed petals; 4 sepals; lower leaves can be opposite or basal; leaves alternate and simple– **Onagraceae (Evening-Primrose)**
 6. Flowers with 4-6 petals, 2 sepals
 - A. flowers with 4-6 yellow petals (generally 5) open only in sunshine, soon close; 2 united sepals; leaves alternate and simple - **Portulacaceae (Purslane)** - *Portulaca oleracea*
 - B. flowers with 4 yellow petals; 2 sepals; leaves alternate and compound – **Fumariaceae (Fumitory)**
 7. Flowers with 5 petals, 0-5 sepals
 - A. flowers with 5 petals; 5 sepals or lacking; petals can be yellow, white, or purple; petals and sepals are distinct; individual flowers are small and grouped in compound umbels; leaves basal and compound – **Apiaceae (Carrot)**
 - B. flowers with 5 united yellow, white, green, or pink; 5 sepals; petals and sepals are folded down; 5 erect, colored corona hoods on top; leaves opposite and simple – **Asclepiadaceae (Milkweed)**
 - C. flowers with 5 united small yellow, pink, white, red or purple petals; 5 sepals; leaves alternate and simple (sometimes lower leaves opposite in *Cryptantha*) – **Boraginaceae (Borage)**- *Cryptantha*, *Cynoglossum*, *Heliotropium*
 - D. flowers with 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united; 5 sepals united; leaves alternate and compound – **Fabaceae (Pea)**
 - E. flowers with 5 distinct yellow, orange or bluish-purple petals; 5 distinct sepals; flowers papery and short-lived; leaves alternate and simple – **Linaceae (Flax)**
 - F. flowers with 5 distinct yellow petals; 4-5 sepals; petaloid stamens; leaves alternate and simple - **Loasaceae (Stickleaf)** – *Mentzelia albicaulis*
 - G. flowers with 5 united petals; 5 lobed sepals; flowers are funnellform, scarlet,

- lavender, blue, white, yellow, or pink; leaves alternate and simple –
Polemoniaceae (Phlox) - *Gilia*
- H. flowers with 5 or more yellow petals, 5 sepals, leaves basal and alternate; leaves simple, primarily basal in a rosette – **Ranunculaceae – Buttercup** - *Ranunculus cymbalaria*
- I. flowers with 5 red, yellow, or blue united petals; 5 sepals, at least partially united; leaves opposite and simple – **Scrophulariaceae (Figwort)** – *Mimulus*
- J. flowers with 5 united tubular yellow petals; 4 or 5 sepals, at least partially united; leaves alternate and simple – **Scrophulariaceae (Figwort)** – *Linaria dalmatica*; *Verbascum thapsus*: (leaves also basal in a rosette and simple)
- K. flowers with 5 united tubular white to violet or yellowish funnellform petals (some are ill-scented and open in the evening); 5 lobed tubular sepals; large leaves; leaves alternate and simple – **Solanaceae (Potato)**
- L. flowers with 5 unequal petals, yellow, purple veined and commonly purple dorsally, the lowermost enlarged and spurred; 5 separate sepals, distinct or nearly so; leaves alternate and simple - **Violaceae (Violet)** - *Viola purpurea* var. *venosa*
- M. flowers with 5 yellow petals; 5 sepals; plant lying flat on the ground, seeds with spines; leaves opposite and compound - **Zygophyllaceae (Caltrop)** – *Tribulus terrestris*
8. Flowers with 5-10 petals, 5 sepals
- A. yellow flowers with 5-10 distinct petals; 5 sepals, numerous petaloid stamens; leaves alternate and simple - **Loasaceae (Stickleaf)** – *Mentzelia albicaulis*: 5 yellow petals; *Mentzelia multiflora*: 10 yellow petals; the inner 5 somewhat shorter and narrower; *Mentzelia pterosperma*: 10 petals; *Mentzelia pumila*: 10 petals

Orange flowers

1. Flowers with 5 petals, 3-5 sepals
- A. flowers with 5 distinct yellow, orange or bluish-purple petals; 5 distinct sepals; flowers papery and short-lived; leaves alternate and simple – **Linaceae (Flax)** - *Linum aristatum*: bright yellow or orange-yellow petals
- B. flowers with 5 distinct orange or red petals; 3 to 5 sepals; leaves alternate and simple – **Malvaceae (Mallow)**

Pink flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves alternate and simple – **Asteraceae (Sunflower)**
2. Flowers with 0 petals, 3-6 sepals
- A. flowers with 0 petals; 4-5 white, pink, or purple united tubular petaloid sepals; leaves opposite and simple – **Nyctaginaceae (Four O'Clock)**
- B. flowers with 0 petals; 3 to 6 petaloid white, yellow, green, pink or red sepals, small; some stems have swollen nodes; leaves alternate/basal and simple –

- Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green); *Eriogonum gordonii* (flowers white or tinged with pink, midrib green or purple); *Polygonum lapathifolium* (green, white, or pink); *Rumex hymenosepalus* (pink); and *Rumex venosus* (red)
3. Flowers with 3-8 petals, 3 sepals
 - A. flowers with 3 to 8 small to medium white, pink, or purple petals oriented in an upward or outward direction; 3 sepals (commonly petaloid); leaves basal and simple; leaves parallel veined; monocot – **Liliaceae (Lily)**
 4. Flowers with 4 petals, 4 sepals
 - A. flowers with 4 white, yellow, pink or purple small to medium petals (not papery); 4 sepals; leaves alternate and simple – **Brassicaceae (Mustard)**
 - B. flowers with 4 white, yellow, or pink large papery clawed petals; 4 sepals; lower leaves can be opposite or basal; leaves alternate and simple – **Onagraceae (Evening-Primrose)**
 5. Flowers with 4-5 petals, 4-5 sepals
 - A. flowers with 4 or 5 united lobed white to pink or rose petals in cymes; flowers tubular expanding at end, 4 or 5 lobed sepals; leaves opposite and simple – **Gentianaceae (Gentian)** – *Centaurium*
 - B. flowers with 4 or 5 united tubular red, green, or pink or purple petals; 4 or 5 sepals, at least partially united; leaves alternate and simple – **Scrophulariaceae (Figwort)** - *Castilleja*, *Cordylanthus wrightii*
 6. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 united yellow, white, green, or pink; 5 sepals; petals and sepals are folded down; 5 erect, colored corona hoods on top; leaves opposite and simple – **Asclepiadaceae (Milkweed)**
 - B. flowers with 5 united small yellow, pink, white, red or purple petals; 5 sepals; leaves alternate and simple (sometimes lower leaves opposite in *Cryptantha*) – **Boraginaceae (Borage)**- *Cryptantha*, *Cynoglossum*, *Heliotropium*, *Lappula*, *Lithospermum*
 - C. flowers with 5 white or pink petals; 5 sepals, 4-10 stamens; leaves opposite and simple – **Caryophyllaceae (Pink)**
 - D. flowers with 5 united funnellform white, blue, lavender, purple or rose petals; 5 separate sepals; leaves alternate and simple - **Convolvulaceae (Morning Glory)**
 - E. flowers with 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united; 5 sepals united; leaves alternate and compound – **Fabaceae (Pea)**
 - F. flowers with 5 pinkish, purple petals; 5 sepals; leaves opposite and compound; or leaves basal and opposite, compound – **Geraniaceae (Geranium)**
 - G. flowers with 5 united petals; 5 lobed sepals; flowers are funnellform, scarlet, lavender, blue, white, yellow, or pink; leaves alternate and simple – **Polemoniaceae (Phlox)** - *Gilia*
 - H. flowers with 5 united tubular white (or less often bluish or pink) petals; 5 lobed sepals, flowers in cymes; leaves opposite and simple – **Polemoniaceae (Phlox)** - *Phlox austromontana*

- I. flowers with 5 lobed lavender to pink tubular petals with the corolla tube rimmed in yellow; 5 tubular lobed sepals; leaves simple, primarily basal in a rosette - **Primulaceae (Primrose)**
- J. flowers with 5 white or cream (less commonly pink or blue tinged) petals with spurs colored like the sepals; 5 sepals; leaves basal and alternate, compound – **Ranunculaceae – Buttercup** - *Aquilegia micrantha*

Blue flowers

- 1. Flowers with 4 petals, 5 sepals
 - A. flowers 4 petals (2 unlike sets of 2 purple or blue petals); 5 purple petaloid sepals; leaves alternate and compound – **Ranunculaceae (Buttercup)** – *Delphinium* (Larkspur)
- 2. Flowers with 5 petals, 5 sepals
 - A. flowers with 5 bluish-white tube-shaped partly united petals borne in terminal clusters; 5 parted sepals; leaves alternate and simple – **Apocynaceae (Dogbane)** – *Amsonia tomentosa*
 - B. flowers with 5 united funnellform white, blue, lavender, purple or rose petals; 5 separate sepals; leaves alternate and simple - **Convolvulaceae (Morning Glory)**
 - C. flowers with 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united; 5 sepals united; leaves alternate and compound – **Fabaceae (Pea)**
 - D. flowers with 5 united purple, blue, or white petals, not papery; 5 united sepals; flowers grouped in S-shaped cymes, rarely solitary; leaves alternate and simple (the lower leaves sometimes opposite in *Phacelia*) – **Hydrophyllaceae (Waterleaf)**
 - E. flowers with 5 united blue, purple, or white petals; 5 sepals; leaves opposite and simple – **Lamiaceae (Mint)**–*Hedeoma drummondii*, *Marrubium vulgare*
 - F. flowers with 5 distinct yellow, orange or bluish-purple petals; 5 distinct sepals; flowers papery and short-lived; leaves alternate and simple – **Linaceae (Flax)**
 - G. flowers with 5 united tubular white (or less often bluish or pink) petals; 5 lobed sepals, flowers in cymes; leaves opposite and simple – **Polemoniaceae (Phlox)** - *Phlox austromontana*
 - H. flowers with 5 united petals; 5 lobed sepals; flowers are funnellform, scarlet, lavender, blue, white, yellow, or pink; leaves alternate and simple – **Polemoniaceae (Phlox)** - *Gilia*
 - I. flowers with 5 white or cream (less commonly pink or blue tinged) petals with spurs colored like the sepals; 5 sepals; leaves basal and alternate, compound – **Ranunculaceae – Buttercup** - *Aquilegia micrantha*
 - J. flowers with 5 red, yellow, or blue united petals; 5 sepals, at least partially united; leaves opposite and simple – **Scrophulariaceae (Figwort)** – *Penstemon*
 - K. flowers with 5 lobed united tubular pale blue to purple petals, regular or slightly 2-lipped; flowers borne in long dense spikes; 5 toothed sepals, usually tubular; leaves opposite and simple - **Verbenaceae (Vervain)** –

Verbena bracteata

Purple, Lavender flowers

1. Flowers appear to be a single flower, but are composed of several flowers; flowers can be yellow, white, purple, pink or greenish; leaves simple, primarily basal in a rosette – **Asteraceae (Sunflower)**
2. Flowers with 0 petals, 4-5 sepals
 - A. flowers with 0 petals; 5 sepals; 3 conspicuous green or red to purple bracts; flowers in axillary clusters; leaves alternate and simple – **Amaranthaceae (Amaranth)** – *Amaranthus blitoides*
 - B. flowers with 0 petals; 3 to 6 petaloid sepals; flowers white or tinged with pink, midrib green or purple; leaves simple, primarily basal in a rosette – **Polygonaceae (Buckwheat)**– *Eriogonum gordonii*
 - C. flowers with 0 petals; 4-5 white, pink, or purple united tubular petaloid sepals; leaves opposite and simple – **Nyctaginaceae (Four O’Clock)**
3. Flowers with 3 petals, 3 sepals
 - A. flowers with 3 brownish, purple, green or yellowish green petals (free or united, one petal differing from the other two in form, size, and coloration, often forming a lip or spur), 180 degree twist in the flower causing the upper petal to look like the lower one; 3 sepals; sepals either green and sepaloid or colored and petaloid; leaves often sheathing, parallel veined; monocot; leaves alternate and simple – **Orchidaceae (Orchid)**
4. Flowers with 3-8 petals, 3 sepals
 - A. flowers with 3 to 8 small to medium white, pink, or purple petals oriented in an upward or outward direction; 3 sepals (commonly petaloid); leaves basal and simple; leaves parallel veined; monocot – **Liliaceae (Lily)**
5. Flowers with 4-5 petals, 4-5 sepals
 - A. flowers with 4 white, yellow, pink or purple small to medium petals (not papery); 4 sepals; leaves alternate and simple – **Brassicaceae (Mustard)**
 - B. flowers 4 petals (2 unlike sets of 2 purple or blue petals); 5 purple petaloid sepals; leaves alternate and compound – **Ranunculaceae (Buttercup)** – *Delphinium* (Larkspur)
 - C. flowers with 4 or 5 united tubular red, green, or pink or purple petals; 4 or 5 sepals, at least partially united; leaves alternate and simple – **Scrophulariaceae (Figwort)** - *Cordylanthus wrightii*
6. Flowers with 5 petals, 5 sepals (0-5 sepals in Apiaceae)
 - A. flowers with 5 united small yellow, pink, white, red or purple petals; 5 sepals; leaves alternate and simple (sometimes lower leaves opposite in *Cryptantha*) – **Boraginaceae (Borage)**
 - B. flowers with 5 united funnelform white, blue, lavender, purple or rose petals; 5 separate sepals; leaves alternate and simple - **Convolvulaceae (Morning Glory)**
 - C. flowers with 5 blue, purple, pink, white, yellow or inconspicuous petals distinct or lower 2 united; 5 sepals united; leaves alternate and compound – **Fabaceae (Pea)**

- D. flowers with 5 pinkish, purple petals; 5 sepals; leaves basal and opposite, compound – **Geraniaceae (Geranium)**
- E. flowers with 5 united purple, blue, or white petals, not papery; 5 united sepals; flowers grouped in S-shaped cymes, rarely solitary; leaves alternate and simple (the lower leaves sometimes opposite in *Phacelia*) – **Hydrophyllaceae (Waterleaf)**
- F. flowers with 5 united blue, purple, or white petals; 5 sepals; leaves opposite and simple – **Lamiaceae (Mint)**–*Hedeoma drummondii*, *Marrubium vulgare*
- G. flowers with 5 distinct yellow or bluish-purple petals; 5 distinct sepals; flowers papery and short-lived; leaves alternate and simple – **Linaceae (Flax)**
- H. flowers with 5 united petals; 5 lobed sepals; flowers are funnellform, scarlet, lavender, blue, white, yellow, or pink; leaves alternate and simple – **Polemoniaceae (Phlox)** - *Gilia*
- I. flowers with 5 lobed lavender to pink tubular petals with the corolla tube rimmed in yellow; 5 tubular lobed sepals; leaves simple, primarily basal in a rosette - **Primulaceae (Primrose)**
- J. flowers with 5 united tubular white to violet or yellowish funnellform petals (some are ill-scented and open in the evening); 5 lobed tubular sepals; large leaves; leaves alternate and simple– **Solanaceae (Potato)**
- K. flowers with 5 lobed united tubular pale blue to purple petals, regular or slightly 2-lipped; flowers borne in long dense spikes; 5 toothed sepals, usually tubular; leaves opposite and simple - **Verbenaceae (Vervain)** – *Verbena bracteata*
- L. flowers with 5 unequal petals, yellow, purple veined and commonly purple dorsally, the lowermost enlarged and spurred; 5 separate sepals, distinct or nearly so; leaves alternate and simple - **Violaceae (Violet)** - *Viola purpurea* var. *venosa*
- M. flowers with 5 petals; 5 sepals or lacking; petals can be yellow, white, or purple; petals and sepals are distinct; individual flowers are small and grouped in compound umbels; leaves basal and compound – **Apiaceae (Carrot)**

Red flowers

1. Flowers with 0 petals, 3-6 sepals
 - A. flowers with 0 petals; 5 sepals; 3 conspicuous green or red to purple bracts; flowers in axillary clusters; leaves alternate and simple – **Amaranthaceae (Amaranth)** – *Amaranthus blitoides*
 - B. flowers with 0 petals; 3 to 6 petaloid white, yellow, green, pink or red sepals, small; some stems have swollen nodes; leaves alternate/basal and simple -**Polygonaceae (Buckwheat)** – *Eriogonum alatum* (yellowish, green), *Polygonum lapathifolium* (green, white, or pink), *Rumex hymenosepalus* (pink), and *Rumex venosus* (red)
2. Flowers with 4-5 petals, 4-5 sepals
 - A. flowers with 4 or 5 united tubular red, green, or pink or purple petals; 4 or 5 sepals, at least partially united; leaves alternate and simple –

Scrophulariaceae (Figwort) - Castilleja

3. Flowers with 5 petals, 3-5 sepals
 - A. flowers with 5 united small yellow, pink, white, red or purple petals; 5 sepals; leaves alternate and simple (sometimes lower leaves opposite in *Cryptantha*) – **Boraginaceae (Borage)**- *Cryptantha*, *Cynoglossum*, *Heliotropium*, *Lappula*, *Lithospermum*
 - B. flowers with 5 distinct orange or red petals; 3 to 5 sepals; leaves alternate and simple – **Malvaceae (Mallow)**
 - C. flowers with 5 united petals; 5 lobed united sepals; flowers are funnelform, scarlet, lavender, blue, white, yellow, or pink; leaves alternate and simple – **Polemoniaceae (Phlox) - Gilia**
 - D. flowers with 5 red, yellow, or blue united petals; 5 sepals, at least partially united; leaves opposite and simple – **Scrophulariaceae (Figwort) – Mimulus, Penstemon**