

Taxonomy of plants.

SOME COMMON FAMILY CHARACTERISTICS OF PLANTS

GRASS FAMILY (Gramineae) Fibrous roots. Jointed stems. Internodes may be solid or hollow. Leaves borne on the stem in two ranks, one at each node. Leaf consists of sheath and blade. Sheath clasps stem; blade has parallel veins. Flowers are incomplete - (have no sepals or petals), but consist of a pistil and usually three plumose stamens.

Examples: native grasses, small grains, corn, rice, sorghums, bermudagrass, bamboos, etc.

SEDGE FAMILY (Cyperaceae) Grass-like herbs with fibrous roots. Stems solid, triangular in shape, unjointed. Leaves in three ranks.

Examples: sedges, whitetop, rushes, bulrushes

LILY and IRIS FAMILIES (Liliaceae and Iridaceae) Herbs from bulbs, rhizomes, corms. Easily recognized by the perianth which is in two circles of three parts each, all alike or nearly so (three sepals, three petals.) Six stamens. There are three distinct styles, or one style which branches into three.

Examples: wild onions, blue-eyed grass, iris, pleatleaf

BUTTERCUP FAMILY (Ranunculaceae) Herbaceous plants. May have both sepals and petals (five each), or may lack petals, but have petal-like sepals. Stamens are numerous and pistils several to numerous.

Examples: buttercups, larkspur, pricklypoppy

MUSTARD FAMILY (Cruciferae) Usually herbs with small yellow or white regular flowers which bloom in late winter or very early spring. Sepals 4. Petals 4, disposed in a cross. Stamens 6, four generally longer than other two.

Examples: shepard's purse, mustard, bladderpod, pepperweed

ROSE FAMILY (Rosaceae) Flowers regular (radial symmetry) and perfect. Few to numerous stamens and pistils surrounded by 5 petals and 5 sepals. Leaves are alternate, cleft, or divided, pinnately or palmately. Stipules generally present at base of leaf.

Examples: hawthorns, blackberries and dewberries, roses, plum, peach

LEGUME FAMILY (Leguminosae) Herbs, shrubs, or trees. Leaves are generally alternate, compound, and have stipules. Flowers: Sepals 5; petals 5; stamens usually 10, but can be 5 or many. Fruit is a legume, usually splitting along both sides; but sometimes in dehiscent. Three subfamilies:

Mimosa - Flowers regular (radial symmetry.)

Examples: mimosa, acacias, mesquite

Gaesalpinia - Flowers not radially symmetric, but not pea shaped.

Examples: redbud, partridgepea, honeylocust

Papilionaceae - Flowers papilionaceous (shaped like pea flower), with a standard, 2 wings, and 2 petals making up a keel.

Examples: clovers, bluebonnets, snoutbeans, lespedezas, wildbeans, vetch, tickclovers, wildindigo, etc.

SPURGE FAMILY (Euphorbiaceae) Milky juice. Flowers imperfect. Stamens and pistils in separate flowers on same or different plants. Individual flowers usually small, but occurs in bunches. The bunches are sometimes surrounded by modified (colored) leaves. Fruit is generally 3-seeded.

Examples: Snow-on-the-Prairie, poinsettia, mat euphorbia, queensdelight, bullnettle

MILKWEED FAMILY (Asclepiadaceae) Milky juice. Flowers perfect. Stamens 5, the tips of which are joined (have a hooded appearance.) Sepals 5. Petals 5, generally reflexed (bent down). Flower also has an inner row of "false petals," called a corona. Leaves are paired-opposite. Seeds are tipped with long, silky hairs.

Examples: butterfly milkweed, green milkweed, broadleaf milkweed.

MALLOW FAMILY (Malvaceae) Flowers radially symmetric with 5 sepals, 5 petals, and numerous stamens united to form a column around the style. Leaves alternate, usually lobed, cleft, or palmately divided.

Examples: winecups, hibiscus, sidas, indianmallow, cotton, velvetleaf

EVENING PRIMROSE FAMILY (Onagraceae) Herbaceous plants. Flowers perfect and radially symmetric. Sepals 4, generally reflexed when flower opens, may adhere to each other. Petals 4. Stamens 4 or 8. Stigma usually 4-lobed.

Examples: gaura, evening primroses

MORNINGGLORY FAMILY (Convolvulaceae) Trailing or twining plants. Sepals 5, almost separate. Petals 5, joined to form a funnel which generally flares into a disk. The petals are spiraled or rolled up in the bud, and may twist when they begin to wither.

Examples: morningglory, sweet potato, bindweeds, dodder

VERBENA FAMILY (Verbenaceae) Square stem, leaves opposite. Flowers bilaterally symmetric. Sepals united, 5 toothed. Petals 5, united and two-lipped. Stamens 4, all included in corolla tube, two longer than other two. Style divided with two stigmas. Fruit - 2 to 4 nutlets. Leaf blades usually cleft, divided, pinnate, palmate, etc (not simple.)

Examples: verbenas (sweet william), fogfruit, lantana, American beautyberry

MINT FAMILY (Labiatae) Square stem. Leaves opposite and simple, have aromatic smell when crushed. Flowers bilabiate. Sepals 5, united. Petals 5, united to form upper lip and lower lip. Stamens 4, included in corolla tube, two shorter than other two. Fruit is 4 nutlets included in the persistent sepals.

Examples: horsemint or beebalm, sages, scullcaps, henbit or dead-nettle, lionsheart

SNAPDRAGON (FIGWORT) FAMILY (Scrophulariaceae) Petals 5, joined to form an irregular, two-lipped corolla. The opening between upper and lower lip may be partially to completely closed by an elevated part of the lower lip. Stamens, generally 4, of two lengths. Style single. Stigma entire or two lobed.

Examples: Indian paintbrush, toadflax, penstemons, gerardia, monkeyflowers

NIGHTSHADE FAMILY (Solanaceae) Flowers 5 merous on bractless pedicels. All petals united. Leaves are toothed, pinnately lobed, or divided. Plant usually prickly.

Examples: silverleaf nightshade, ground cherry, Jimsonweed, buffalobur, horsenettle, tomato, potato, garden peppers, petunia

COMPOSITE (SUNFLOWER) FAMILY (Compositae) The largest family of plants in temperate climates - includes more species.

Characterized by several to many small flowers borne in a compact inflorescence - packed together on a flat or dome shaped receptacle. The flowers are usually of two types - "ray" flowers around the outside (yellow or white), and "disk" flowers in the center. Ray flowers have 5 petals which are united for a distance then expand to one side as a "ray." Disk flowers have 5 petals joined into a radially symmetric tube which ends with 5 teeth. A two-branched stigma usually extends beyond the corolla tube.

Some species, however, lack ray flowers (ironweed); and some lack disk flowers - made up entirely of ray-type flowers (dandelion.) Sepals are modified into scales or pappus.

Examples: sunflowers, ironweed, goldenrods, indianblanket, sneezeweeds, coneflowers, asters, compassplant, thistles, gayfeathers