

A Short Synopsis of Cronquist's System

1 Division - Magnoliophyta

2 Classes - Magnoliopsida (Dicots) and Liliopsida (Monodots)

Subclasses

Orders

Families

Dicots - 6 subclasses, 64 orders, 318 families, 170,000 species

Monocots - 5 subclasses, 19 orders, 65 families, 50,000 species

Magnoliidae

Lurales (Lauraceae)

Ranunculales (Ranunculaceae)

Papaverales (Papaveraceae)

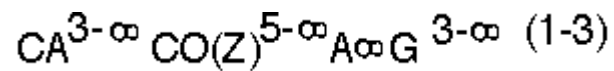
RANUNCULACEAE - Buttercup or Crowfoot's Family



Annual or perennial herbs, few shrubs and vines

Leaves alternate and palmately divided, petioles sheathing stem at base, no stipules

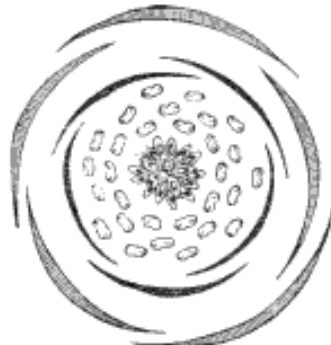
Flowers bisexual, actinomorphic or zygomorphic, in a variety of inflorescences



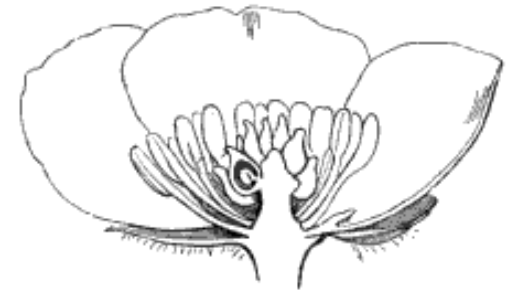
RANUNCULACEAE



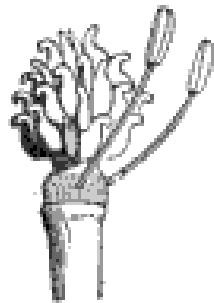
Ranunculus



**Ranunculus
diagram**



**Ranunculus
vertical section**



**Ranunculus
pistil**



**Ranunculus seed
whole and vertical section**

RANUNCULACEAE

Insect pollinated

Placentation marginal

Fruit a follicle, achene or berry

Seed with minute embryo

62 genera, 2450 species

The Ranunculaceae is divided into five subfamilies based on the number of gynoecia, presence/absence of the corolla, and the number of ovules/carpel.

RANUNCULACEAE

Economic importance: ornamentals

Medicinal uses - There are a wide range of drugs and poisons found in the Ranunculaceae. Many compounds serve both purposes, some can cure disease at one dosage and kill at a higher one. These compounds are alkaloids, which are a general class of nitrogen-containing compounds, many of which are derived from amino acids.

RANUNCULACEAE

Diagnostic characteristics - Herbaceous, leaves palmately divided, flowers with many stamens, gynoecium of many simple pistils, fruit an aggregate of achenes or follicles.

PAPAVERACEAE - Poppy Family



PAPAVERACEAE - Poppy Family

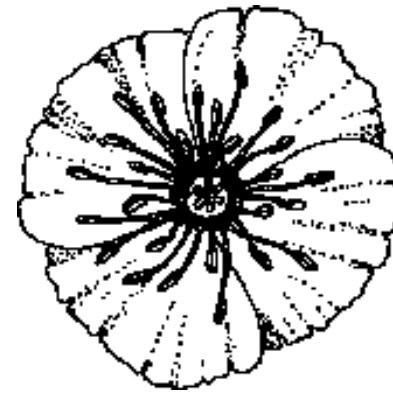
Annual or perennial herbs with milky sap

Leaves alternate, basal or cauline, much divided

Flowers solitary, bisexual, actinomorphic

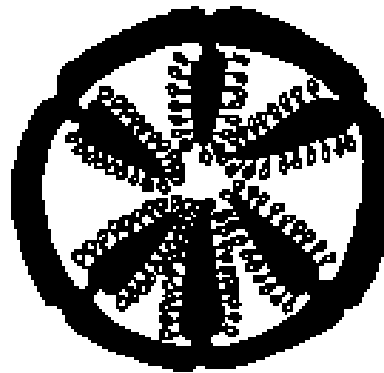
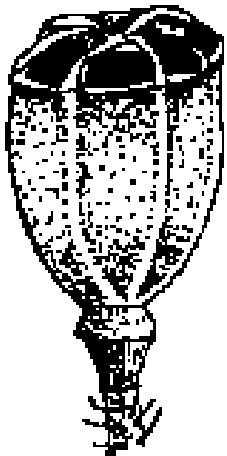
PAPAVERACEAE - Poppy Family

Fruit a capsule with pores or valves, seeds often small and numerous.



Argemone

CA 2-3 CO 4-∞ A ∞ G (2-∞)



x-section

Placentation parietal

PAPAVERACEAE - Poppy Family

25 genera, 200 species

The Papaveraceae is broken up into four subfamilies mostly on the basis of hair and pollen grain characteristics. In some classifications, the Fumariaceae is included in the Papaveraceae.

HAMAMELIDAE

11 orders

24 families

3400 species

2/3 of species are in order Urticales

1/4 of species are in order Fagales

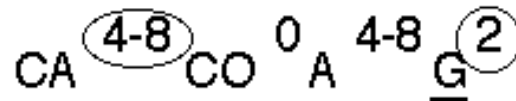
remaining 9 orders have less than 300 species

ULMACEAE - Elm Family

Trees or shrubs

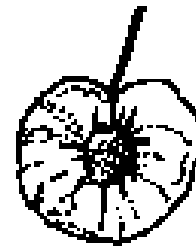
Leaves alternate, simple, oblique bases, stipules paired

Flowers solitary, cymose or fasciculate, bi- or unisexual, reduced, wind-pollinated



ULMACEAE - Elm Family

Fruit a samara or drupe



samara



drupe



ULMACEAE - Elm Family

Divided into two subfamilies based on fruit type:

Ulmoideae - fruit a samara, includes Ulmus (elms)

Celtidoideae - fruit a drupe, includes Celtis
(hackberries)



Ulmus



Celtis



ULMACEAE - Elm Family

18 genera, 150+ species

Economic importance - shade trees and lumber

Medicinal uses - Tea made from the inner bark of

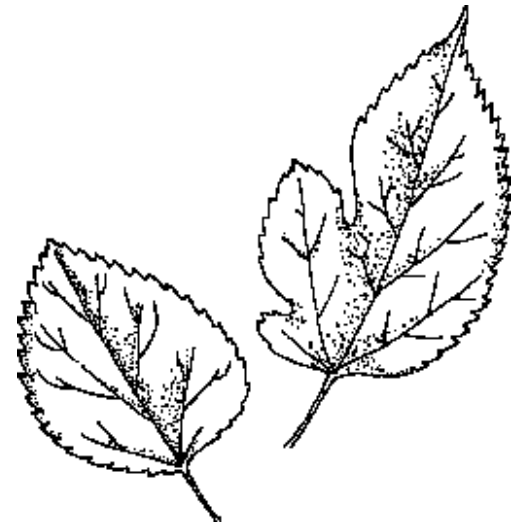
Slippery Elm (*Ulmus rubra*) has been used internally for sore throats, indigestion, and ulcers and various types of external wounds.

Diagnostic characters - woody, leaves simple and basally oblique, fruit a samara or drupe

MORACEAE - Mulberry Family

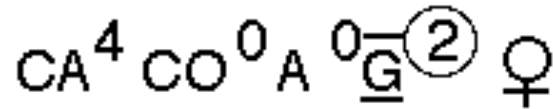
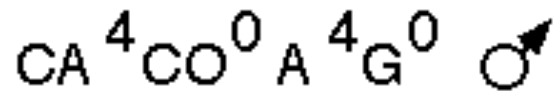


Trees, shrubs, rarely
herbs



MORACEAE - Mulberry Family

Leaves alternate, simple, often lobed, 2 stipules
Flowers unisexual in a variety of inflorescences,
including catkins

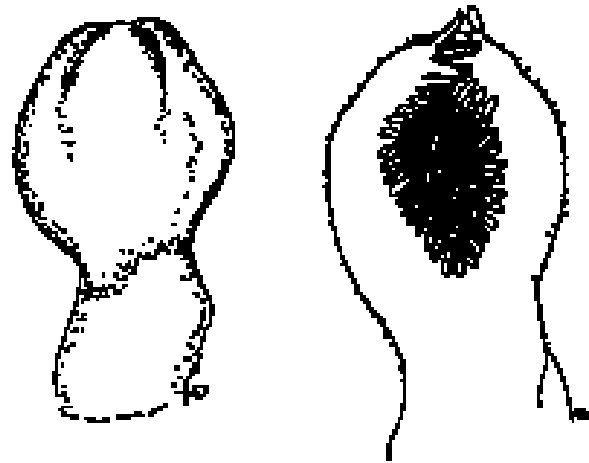


MORACEAE - Mulberry Family

Wind-pollinated with the exception of *Ficus*

Fruit a multiple composed of many small drupes

Seed without endosperm



Ficus inflorescence is a syconium

MORACEAE - Mulberry Family

40 genera, 1000 species, more than 500 species of *Ficus*

The Moraceae is divided into five subfamilies on the basis of flower and inflorescence characters. The subfamily Ficeae is unusual with its flowers in invaginated receptacles (a syconium).

URTICACEAE - Nettle Family



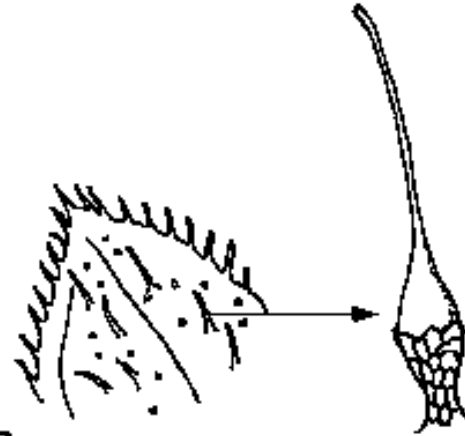
Mostly herbs, rarely subshrubs and small trees

Leaves opposite or alternate, simple, stipules present, stinging hairs present in some. The hair acts like a miniature hypodermic needle and brushes against it, injecting its toxin into the skin.

URTICACEAE - Nettle Family



Urtica



Hair

Flowers unisexual, actinomorphic, in cymes,
heads or solitary, actinomorphic

(CA4-5CO0A4-5G0)



(CA4-5CO0A0G1)



Fruit

URTICACEAE - Nettle Family

Plants monoecious or dioecious

Fruit an achene or fleshy drupe

Seeds with endosperm

45 genera, 700 species in tropics and temperate areas

The Urticaceae is divided into five subfamilies on the presence

or absence of stinging hairs and floral characters.

URTICACEAE - Nettle Family

Economic importance - some houseplants, tips of *Urtica* can be boiled and eaten, Ramie is used for fiber

Medicinal uses - *Urtica* leaf tea used as a "blood purifier" and "blood builder", freeze-dried leaves used to treat allergies, nettle stings used to relieve arthritis

Diagnostic characters - herbs with stinging hairs and highly reduced flowers

