

## POLYPETALAE – petals separate

### THALAMIFLORAE – Sepals, Petals and Stamens all attached to receptacle.

#### Gynoecium apocarpous.

RANUNCULACEAE (Herbaceous, leaves 3-parted)

BERBERIDACEAE\* (Carpel solitary, Anthers with flaps).



#### Parietal placentation. [NOT Natural. Convergent evolution:

Papaveraceae close to Ranunc., but remainder scattered amongst Rosids]

PAPAVERACEAE\* (Sepals 2, petals 4) CRUCIFERAE\*

(Petals 4, Stamens 6, ovary 2) CAPPARACEAE\* (Ovary

stalked) RESEDACEAE (Ovary open, 3-parted)

CISTACEAE VIOLACEAE



#### Ovary 2-3 septate.

PITTOSPORACEAE\* POLYGALACEAE.



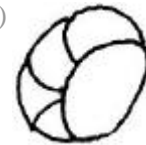
#### Axile placentation.

CARYOPHYLLACEAE\* PORTULACACEAE (Sepals gland-fringed)



#### Stamens numerous; Calyx imbricate.

GUTTIFERAE/CLUSIACEAE\* THEACEAE



#### Stamens numerous; Calyx valvate.

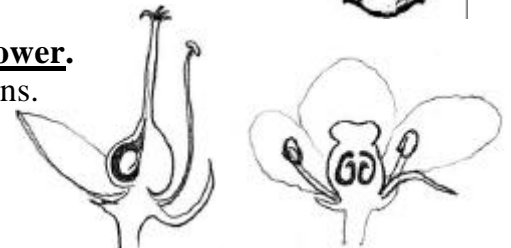
MALVACEAE\* (Anthers 1-celled) STERCULIACEAE TILIACEAE.



### DISCIFLORAE – Ovary superior, immersed in disk of flower.

#### Ovule pendulous, raphe ventral ;multiple series of stamens.

LINACEAE; GERANIACEAE\*; RUTACEAE



#### Ovule pendulous, raphe dorsal

OLACACEAE; AQUIFOLIACEAE\*.

#### Ovule erect, raphe ventral

CELASTRACEAE; RHAMNACEAE\*; VITACEAE.



#### Ovule ascending, raphe ventral to reversed

SAPINDACEAE\*; ANACARDIACEAE



### CALYCIFLORAE – Stamens fused to Calyx of flower

#### Ovaries separate, rarely united

LEGUMINOSAE ROSACEAE\*

[SAXIFRAGALES. Carpels ±fused, separate styles:

SAXIFRAGACEAE\* (2 carps) CRASSULACEAE (5-6 carps)

HAMAMELIDACEAE (2)]

[: HYDRANGEACEAE – opp leaves, syncarpous.

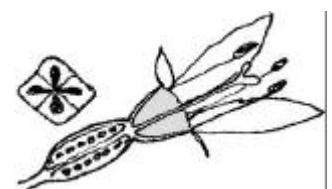
ESCALLONIAACEAE – alt leaves dry pod => ASTERIDS



#### Ovary syncarpous; divided into locules.

MYRTACEAE (stamens numerous)

LYTHRACEAE\* ONAGRACEAE\*.



#### Ovary syncarpous; Parietal placentation LOASACEAE; TURNERACEAE;

PASSIFLORACEAE; CUCURBITACEAE\*; BEGONIACEAE; DATISCEAE.



#### Ficoidales – Ovary syncarpous; sub-basal placentation [the basal placentation is critical in placing these families among the Caryophyllids see above]

CACTACEAE; AIZOACEAE.]

#### Umbellales – Ovary syncarpous; 1 ovule per locule. [these families belong amongst the basal Asterids. Inferior ovaries but with separate petals]

UMBELLIFERAE (2-locules); ARALIACEAE (5-locules); CORNACEAE.