

Topic: Apocynaceae

B.Sc. Botany Hons. II

Paper: III Group: B

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Description of the family Apocynaceae plant

Catharanthus roseus (syn. *Vinca rosea*)

Habit:

Perennial herb.

Root:

Branched tap root system.

Stem:

Herbaceous erect, cylindrical, solid, branched, glabrous, and green.

Leaves:

Cauline, ramal, opposite decussate, simple, exstipulate, petiolate, ovate, entire acute, uncostate reticulate venation.

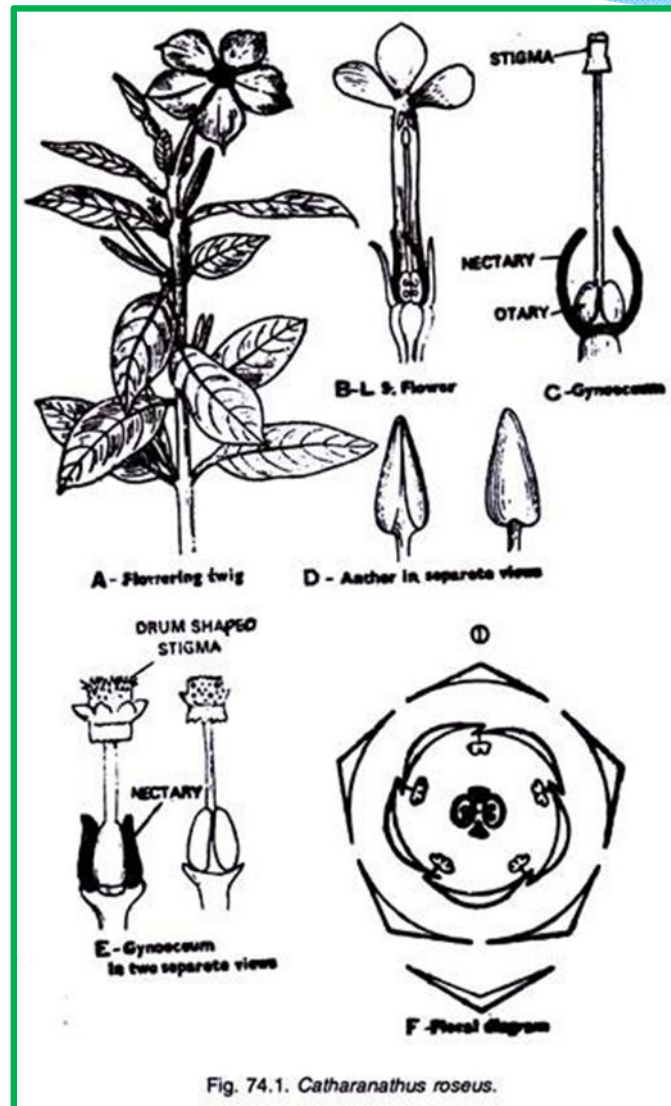


Fig. 74.1. *Catharanthus roseus*.

Inflorescence:

Solitary axillary or in pairs.

Flower:

Bracteate, pedicellate, complete, hermaphrodite, actinomorphic, pentamerous, hypogynous, pinkish white.

Calyx:

Sepals 5, polysepalous, green, glandular, valvate.

Corolla:

Petals 5, gamopetalous, salver-shaped, rotate, pink with long corolla tube, throat of the corolla tube hairy forming a corona, twisted, inferior.

Androecium:

Stamens 5, alternipetalous, epipetalous, dorsifixed, ditheous, introrse, approaching stigma.

Gynoecium:

Bicarpellary, syncarpous, ovaries free at the base, but united at the stigmatic region, unilocular with marginal placentation, superior, two large green nectaries antero-posterior to the ovary; style filiform with dumbbell shaped stigma.

Floral formula: $\text{Br. } \oplus \text{ } \text{K}_5 \overset{\text{C}}{\text{C}}_{(5)} \text{A}_5 \text{G}_{(2)}$

Common plants of the family:

1. *Nerium indicum* (syn. *N. odorum*, H. Kaner):

Cultivated in gardens for ornamental purpose, evergreen shrub.

2. *Carissa carandus* (H. Karaunda):

Spiny shrub, fruits are used as vegetable and pickles.

3. *Catharanthus roseus* (H. Sada Bahar):

Small evergreen herb.

4. *Rauwolfia serpentina* (H. Chotachand):

Found in sub-Himalayan tracts. The roots of this plant are hypnotic, sedative and reduces blood pressure.

5. *Thevetia peruviana*:

Evergreen shrub with highly poisonous milky juice and bitter bark.

6. *Plumeria alba*:

Indian ornamental tree with pleasant smell.

7. *Wrightia tomentosa*:

A small deciduous tree; the bark of stem and roots is antidote to snake bite.

8. *Baijsea multiflora*:

A climber with beautiful scented flowers.

9. *Apocynum cannabinum*:

An ornamental and yields fibres.