

Inflorescence: Types and Evolution

Irani Biswas

Introduction to Inflorescence

- Inflorescence refers to the arrangement and pattern of flowers on a plant. It is an important taxonomic feature in plant identification.
- Two main categories: Racemose (indeterminate) and Cymose (determinate).

Racemose Inflorescence

- Characteristics:
 - Main axis grows continuously.
 - Flowers are arranged in acropetal succession (older at base, younger at top).
- Types: Raceme, Spike, Catkin, Corymb, Umbel, Spadix, Capitulum.

Cymose Inflorescence

- Characteristics:
 - Main axis terminates in a flower.
 - Flowers are arranged in basipetal succession (younger at base, older at top).
- Types: Monochasial cyme, Dichasial cyme, Polychasial cyme.

Special Types of Inflorescence

- Modified forms adapted for specific functions:
- • Hypanthodium (e.g., Ficus).
- • Cyathium (e.g., Euphorbia).
- • Verticillaster (e.g., Ocimum).

Evolution of Inflorescence

- Evolutionary trends in inflorescences:
 - Primitive forms: Solitary flowers, racemose types.
 - Advanced forms: Compound and highly specialized inflorescences.
- Evolution linked to pollination strategies and efficiency in reproductive success.

Summary

- Inflorescence is the arrangement of flowers on a plant.
- Two major types: Racemose (indeterminate) and Cymose (determinate).
- Special types and evolutionary trends show adaptation for reproductive efficiency.