

LECTURE 7: Floral formula

Floral formula: it is a very useful short-hand method of recording floral structure and is the numerical representation of various floral parts. Floral formula also depicts the inter-relationship, symmetry, bi-sexuality and unisexuality of the flowers

Floral formula

1. Calyx =K
2. Corolla = C
- 3, Perianth =P (if K and C are not separable)
3. Androecium =A
4. Gynoecium = G
5. Calyx with 5 fused sepals = K(5)
6. Corolla with 5 free petals = C5
7. Gynoecium is made of 2 free carpels and ovary superior = G2
8. Gynoecium is made of 1 carpel with inferior ovary = G1
9. Perianth made of 2 fused tepals P(2)
10. Adhension between calyx & gynoecium= K5G1
11. Infinite Number (Usually more than 10) = x
12. Mother axis = -
13. Regular (Actinomorphic) = ∞

14. Irregular (zygomorphic) = %
15. Bisexual = ♂
16. Unisexual Staminate = ♂
17. Unisexual pistillate = ♀
18. Absence or suppression of stamens and pistil = X

Examples

1. **Family** = Malvaceae e.g Hibiscus: $\emptyset, \overline{\sigma}, K_{(5)} C_{(5)} A_{(a)} \underline{G}_{(5-a)}$

Regular, bisexual, calyx made of 5 fused sepals, corolla made of 5 fused petals, Androecium made of infinite number of stamens. Gynoecium made of 5 to infinite number of fused carpels with superior ovary.

2. **Family** ; Caesalpinaceae e.g *Casia Angustifolia delonic*, regia, Flame of forest

Floral Formula = $\%, \overline{\sigma}, K_5, C_5, A_{10}, \underline{G}_1$

Irregular, bisexual, calyx made of five free sepals, corolla made of five free petals. Androecium made of 10 free stamens and Gynoecium made of one carpel with superior ovary.

3. **Family**; Mimosaceae e.g *Mimosa Pudica*, *Acacia nitolica* –

floral formula; $\emptyset \overline{\sigma} K_{(4-5)}, C_{(4-5)}, Aa$ or few \underline{G}_1

Regular, bisexual, calyx made of 4-5 fused sepals, corolla made of 4 to 5 fused petals. Androecium made of infinite number of free stamens or few. Gynoecium made of one free carpel with superior ovary.

Family: $\% \overset{\uparrow}{\ominus} K_{(5)}, C_5, A_{(9)+1}, \underline{G}_1$ e.g *Crotolaria retusa*, *Vigna unguiculata*, *Arachis hypogea*.

floral formula; Irregular, bisexual, calyx made of 5 fused sepals, corolla made of 5 free petals.

Androecium made of 9 fused stamens and one free stamen and Gynoecium with one carpel with superior ovary.