

KEY TO THE FAMILIES OF FLOWERING PLANTS
OF
KAWANT RANGE FORESTS

This key to the identification of flowering plant families is based on the characters of the plants encountered in the Kawant Range forests only. Bentham and Hooker's system of classification has been broadly followed here.

Classification

Seeds with two cotyledons; leaves usually with reticulate venation; flowers typically penta - or tetramerous Class I
DICOTYLEDONS

Seeds with one cotyledon; leaves usually with parallel venation, rarely reticulate (Dioscoreaceae); flowers typically trimerous Class II
MONOCOTYLEDONS

Class I DICOTYLEDONS

Calyx and corolla both present :
(petals absent in some members of Sterculiaceae, Combretaceae, Aizoaceae and Molluginaceae)

Petals usually free Sub-class. I POLYPETALAE
(united in some members of
Cucurbitaceae, Mimosaceae and Apiaceae)

Petals unitedSub-class II GAMOPETALAE

Calyx and corolla undifferentiated;

perianth mostly sepaloid, rarely

petaloid or reduced to a scale.....Sub-class III MONOCHLAMYDEAE

Sub-class I POLYPETALAE

Thalamus hypogynous, small, convex or

elongated, not expanded; ovary usually

superiorSeries I Thalamiflorae

Thalamus hypogynous or perigynous,

thickened or expanded into a fleshy

discSeries II Disciflorae

Thalamus perigynous or epigynous, some-

times hypogynous; sepals united enclosing

or adnate to the ovary; petals and stamens

inserted on the rim of the calyx tube or

around the top of the ovary; ovary

superior or inferiorSeries III Calyciflorae

Series I Thalamiflorae

1. Gynoecium apocarpous or monocarpellary

by reduction :

2. Flowers unisexual; climbing or

trailingMenispermaceae

- 2. Flowers bisexual :
 - 3. HerbsRanunculaceae
 - 3. Woody plantsAnnonaceae
- 1. Gynoecium syncarpous :
 - 4. Flowers irregular :
 - 5. Androgynophore presentCapparaceae
(in part)
 - 5. Androgynophore absent :
 - 6. Petal spurredViolaceae
 - 6. Petal not spurredPolygalaceae
 - 4. Flowers regular :
 - 7. Stamens more than 10 :
 - 8. Placentation parietal :
 - 9. Ovary raised on a gynophore :
 - 10. Shrubs or treesCapparaceae
(in part)
 - 10. HerbsCleomaceae
(in part)
 - 9. Ovary not on a gynophore :
 - 11. Herbs or undershrubsPapaveraceae
 - 11. TreesCochlospermaceae
 - 8. Placentation not parietal :

- 12. Placentation axile :
 - 13. Stamens freeTiliaceae
(in part)
 - 13. Stamens united :
 - 14. Stamens monadelphous :
 - 15. Anthers one-celled.....Malvaceae
 - 15. Anthers two-celledSterculiaceae
(in part)
 - 14. Stamens polyadelphous.....Bombacaceae
 - 12. Placentation free-central.....Portulacaceae
(in part)
- 7. Stamens less than 10 :
 - 16. Leaves scale like, alternate,
sheathing; seeds wingedTamaricaceae
 - 16. Leaves well-developed; seeds not winged :
 - 17. Placentation parietal :
 - 18. Stamens tetradynamous.....Brassicaceae
 - 18. Stamens not tetradynamous.....Cleomaceae
(in part)
 - 17. Placentation not parietal :
 - 19. Placentation axile :
 - 20. Stamens basally united
into one bundle.....Sterculiaceae
(in part)

20. Stamens distinct, not united :

21. Leaves alternate; sepals

valvateTiliaceae
(in part)

21. Leaves opposite; sepals

imbricateElatinaceae

19. Placentation free-central :

22. Sepals 2; petals 4-5; leaves

fleshyPortulacaceae
(in part)

22. Sepals and petals 5; leaves

not fleshyCaryophyllaceae

Series II Disciflorae

1. Plants cirrhose (tendrill-bearing) :

2. Fruit a berryVitaceae

2. Fruit an inflated capsuleSapindaceae
(in part)

1. Plants not cirrhose :

3. Herbs, erect or prostrate :

4. Leaves simple :

5. Flowers regular, blueLinaceae

5. Flowers irregular, spurredBalsaminaceae

4. Leaves compound :

6. Fruit spinyZygophyllaceae

6. Fruit not spinyOxalidaceae

3. Undershrubs, Shrubs or trees :

7. Fruit a much elongated capsule,
more than 30 cm. longMoringaceae

7. Fruit not as above, dry or fleshy :

8. Leaves gland-dottedRutaceae

8. Leaves not gland-dotted :

9. Stamens monadelphousMeliaceae

9. Stamens free, distinct :

10.: Leaves simple :

11. Leaves more than
30 cm. longLeeaceae
(in part)

11. Leaves less than 30 cm. long :

12. Plants usually armed
with stipular
spinesRhamnaceae

12. Plants unarmed :

13. Ovule usually one
in each cell...Anacardiaceae
(in part)

Series III Calyciflorae

1. Gynoecium made up of one carpel :

2. Flowers regularMimosaceae

2. Flowers irregular :

3. Corolla papilionaceous; stamens

diadelphous, rarely monadelphousFabaceae

3. Corolla not papilionaceous;

stamens freeCaesalpinaceae

1. Gynoecium made up of more than one carpel :

4. Carpels free (Apocarpous)Rosaceae

4. Carpels united (Syncarpous) :

5. Plants with tendrils :

6. Ovary superior on a gynophore.....Passifloraceae

6. Ovary inferior not on a gynophore..Cucurbitaceae

5. Plants without tendrils :

7. Trees, soft-wooded with milky-

latexCaricaceae

7. Herbs, shrubs or trees without

milky-latex :

8. Flowers regular; stamens definite :

- 9. Ovary usually superior, free
from the calyx :
 - 10. Placentation parietalSamydaceae
 - 10. Placentation not parietal :
 - 11. Plants with sticky glandsVahliaceae
 - 11. Plants not as above :
 - 12. Flowers concealed in a
petiolar pouchAizoaceae
 - 12. Flowers not as above :
 - 13. Herbs, shrubs or trees,
branches 4-gonous;
embryo straightLythraceae
 - 13. Herbs; branches usually not
4-gonous; embryo curved...Molluginaceae
- 9. Ovary inferior or half inferior :
 - 14. Plants growing in or near waterOnagraceae
 - 14. Plants totally terrestrial :
 - 15. ovary 1-celled :
 - 16. Ovule 1, pendulousAlangiaceae
 - 16. Ovules 2-6, suspended from the
apex of the ovaryCombretaceae

- 15. Ovary 2-celled; one ovule in
each cellApiaceae
- 8. Flowers regular or irregular; stamens indefinite :
 - 17. Succulent, prickly plants with
jointed phyllocladesCactaceae
 - 17. Plants not as above :
 - 18. Leaves gland-dotted and intramarginal
vein usually presentMyrtaceae
 - 18. Leaves not gland-dotted and without
intramarginal veinPunicaceae

Sub-class II GAMOPETALAE

- 1. Ovary inferior or adnate to the calyx :
 - 2. Anthers always syngenesious; ovary
1-celledAsteraceae
 - 2. Anthers not syngenesious; ovary more
than 1-celled :
 - 3. Leaves with inter or intrapetiolar
stipulesRubiaceae
 - 3. Leaves exstipulate :
 - 4. Flowers irregularLobeliaceae
 - 4. Flowers regularCampanulaceae

1. Ovary superior or free :
 5. Leafless, non-green, total-parasitic plants and leafy, carnivorous plants :
 6. Carnivorous aquatics; placentation basal-parietalLentibulariaceae
 6. Parasites; placentation not as above :
 7. Root parasites; flowers irregular in condensed spikeOrobanchaceae
 7. Thread-like stem-parasites; flowers regular, inflorescence not as aboveCuscutaceae
 5. Green leafy plants, not carnivorous; rarely partially parasitic :
 8. Leaves usually alternate :
 9. Flowers usually unisexual; stamens inserted on the receptacleEbenaceae
 9. Flowers bisexual; stamens epipetalous :
 10. Ovules indefinite in each cell :
 11. Plants growing in or near water :
 12. Flowers blue, in racemes; leaves linear-lanceolateHydrophyllaceae

- 12. Flowers white, on clustered
peduncles; leaves orbicular,
floatingMenyanthaceae
- 11. Plants terrestrial :
 - 13. Flowers in simple or branched,
long ramemesScrophulariaceae
(in part)
 - 13. Flowers solitary or in cymesSolanaceae
- 10. Ovules definite in each cell :
 - 14. Styles connate, divided above
into 5 stigmatic branchesPlumbaginaceae
 - 14. Style simple or once or twice forked :
 - 15. Trees or shrubs :
 - 16. Plants with milky juice;
fruit a berrySapotaceae
 - 16. Plants without milky juice;
fruit a drupe or of 4 nutlets..Ehretiaceae
 - 15. Herbs or undershrubs :
 - 17. Chiefly climbing or twining
plants; style terminal;
fruit a capsuleConvolvulaceae
 - 17. Erect, diffuse or prostrate
herbs; style usually gynobasic;

fruit of four, 1-seeded nutlets

or a drupeBoraginaceae

8. Leaves usually opposite :

18. Flowers regular;

19. Plants with milky latex :

20. Gynostemium present; styles 2..Asclepiadaceae

20. Gynostemium absent; style 1....Apocynaceae

19. Plants without milky latex :

21. Shrubs or trees :

22. Stamens 2 :

23. Fruit a berry or woody

pyriform capsuleOleaceae

23. Fruit a compressed

capsuleNyctanthaceae

22. Stamens 4 or 5Salvadoraceae

21. Herbs :

24. Stipules small or reduced to

a transverse line; fruit a

horn-shaped capsuleLoganiaceae

24. Stipules absent; fruit not

horn-shaped :

25. Stamens opposite the petals;

placentation free-central..Primulaceae

- 25. Stamens alternate with the
petals; placentation
parietalGentianaceae
(in part)
- 18. Flowers irregular :
 - 26. Fruits elongated; seeds wingedBignoniaceae
 - 26. Fruits not elongated; seeds not winged :
 - 27. Bracts conspicuousAcanthaceae
 - 27. Bracts minute or absent :
 - 28. Lithophytic plants with
usually 1-leafGesneriaceae
 - 28. Plants not as above :
 - 29. Flowers with extra-floral
glands at the base of the
pedicels :
 - 30. Placentation parietal..Martyniaceae
 - 30. Placentation axilePedaliaceae
 - 29. Flowers without extra-floral
glands at the base of the
pedicels :
 - 31. Ovules 1 or 2 in each cell :
 - 32. Ovary entire; style
terminal.....Verbenaceae

32. Ovary deeply 4-lobed;
style gynobasic.....Lamiaceae
31. Ovules numerous :
33. Ovary 2-celledScrophulariaceae
(in part)
33. Ovary 1-celledGentianaceae
(in part)