

DICOTYLEDONS

- 1. Nymphaeales
- 2. Sarraceniales
- 3. Aristolochiales
- 4. Trochodendrales
- 5. Cercidiphyllales
- 6. Didymeleales
- 7. Eupteleales
- 8. Eucommiales
- 9. Casuarinales
- 10. Leitneriales
- 11. Juglandales
- 12. Batales
- 13. Plumbaginales
- 14. Lecythidales
- 15. Salicales
- 16. Diapensiales
- 17. Podostemales
- 18. Haloragales
- 19. Cornales
- 20. Rafflesiales
- 21. Rhamnales

MONOCOTYLEDONS

- 22. Alismatales
- 23. Triuridales
- 24. Najadales
- 25. Hydrocharitales
- 26. Typhales
- 27. Cyclanthales

**DESCRIPTION OF SELECTED
COMMON AND IMPORTANT
PLANT FAMILIES IN THE FLORA
OF ETHIOPIA**

1. ORDER: RANALES

1.1. FAMILY: MAGNOLIACEAE – The Magnolia Family

HABIT: trees or shrubs

LEAVES: simple; alternate

FLOWERS: actinomorphic; hypogynous

PERIANTH: 3-merous (6 to many tepals)

COROLLA: Sepals and petals undifferentiated

STAMENS: Numerous, laminar; spirally arranged

CARPELS: Numerous

OVARY: Apocarpous

FRUIT: A cone-like aggregate of follicles; samaras and berries

1. ORDER: RANALES

The Magnolia Family

CHARACTERISTIC

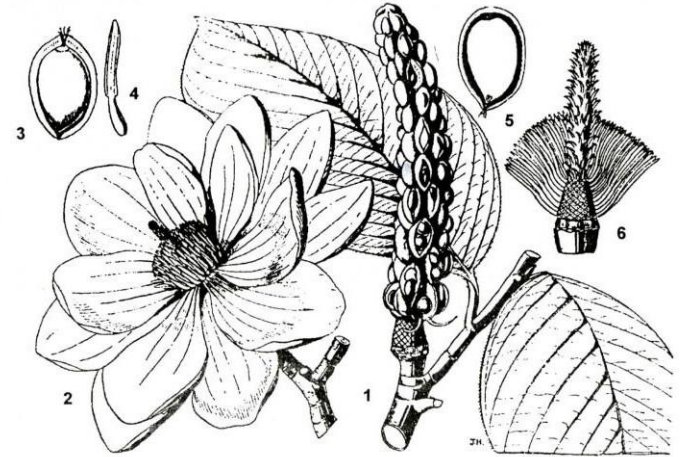
FEATURE (IF ANY): Aromatic and numerous floral parts.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Introduced *Magnolia*

ECONOMIC IMPORTANCE:

Timber from *Magnolia* and *Liriodendron*. Ornamental trees (*Magnolia*).



1.1. Magnoliaceae

The Magnolia Family

CHARACTERISTIC

FEATURE (IF ANY): Aromatic and numerous floral parts.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

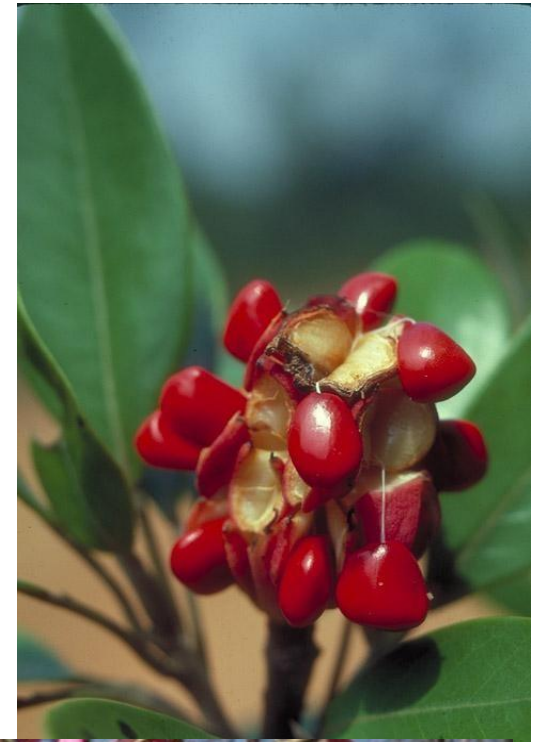
Introduced *Magnolia*

ECONOMIC IMPORTANCE:

Timber from *Magnolia* and *Liriodendron*. Ornamental trees (*Magnolia*).



1.1. Magnoliaceae



1.2. FAMILY: ANNONACEAE – The Annona Family

COMMON CHARACTERS

- HABIT:** trees or shrubs
- LEAVES:** simple; alternate
- FLOWERS:** Actinomorphic; hypogynous
- PERIANTH:** 3-merous (6 to many tepals)
- COROLLA:** Sepals and petals undifferentiated
- STAMENS:** Numerous, laminar; spirally arranged on the receptacle
- CARPELS:** Numerous
- OVARY:** 1-locular
- FRUIT:** an aggregate of berries or a syncarp formed by connation of carpels

1.2. FAMILY: ANNONACEAE – The Annona Family

CHARACTERISTIC FEATURE (IF ANY): Aromatic; nodding flowers and numerous floral parts.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:
Annona, *Artabotrys*, *Monanathotaxis*, *Uvaria* and *Xylopia*.



1.3. FAMILY LAURACEAE – The Laurel Family

COMMON CHARACTERS

- HABIT:** trees, shrubs or rarely parasitic vines
- LEAVES:** simple; alternate, rarely opposite or absent
- FLOWERS:** actinomorphic; hypogynous (superior)
- PERIANTH:** (4-)6 tepals, in two series, undifferentiated
- COROLLA:** (2-) 3 undifferentiated from the sepals
- STAMENS:** 12 stamens in 4 whorls of 3
- CARPELS:** 1 - carpel
- OVARY:** 1-locular
- FRUIT:** berry, drupe or nut-like

1.3. FAMILY LAURACEAE – The Laurel Family

CHARACTERISTIC FEATURE (IF ANY): Aromatic and fruit enclosed by an enlarged calyx.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:
The cultivated *Cinnamomum verum* (KEREFA) and *Persea americana* (AVOCADO); the tree *Ocotea* and the parasitic *Cassytha*.



1.4. FAMILY: RANUNCULACEAE – The Buttercup Family

COMMON CHARACTERS

- HABIT:** Herbs or woody climbers (*Clematis*)
- LEAVES:** Simple or compound; alternate or opposite
(*Clematis*)
- FLOWERS:** Actinomorphic; hypogynous (superior)
- PERIANTH:** 5-merous
- COROLLA:** 5 petals or absent
- STAMENS:** Numerous; spirally arranged
- CARPELS:** Numerous
- OVARY:** 1-locular with 1-numerous ovules
- FRUIT:** An aggregate of follicles, achenes or berries

1.4. FAMILY: RANUNCULACEAE – The Buttercup Family

CHARACTERISTIC FEATURE (IF ANY):

Numerous distinct stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Anemone*, *Clematis*, *Delphinium*, *Nigella*, *Ranunculus* and *Thalictrum*.

ECONOMIC IMPORTANCE: A number of species have medicinal *Thalictrum rhynchocarpum* (SIRE BIZU); horticultural (*Clematis longiflora*, *Delphinium wellbyi*) and agricultural (*Nigella sativa* - TIKUR AZMUD cultivated for its aromatic seeds) importance.

1.4. FAMILY: RANUNCULACEAE – The Buttercup Family

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Clematis hirsuta



Delphinium sp.



Clematis simensis

1.4. FAMILY: RANUNCULACEAE – The Buttercup Family



2. ORDER PIPERALES

2.1. FAMILY: PIPERACEAE – the Pepper Family

COMMON CHARACTERS

- HABIT:** Herbs (sometimes woody at the base);
epiphytic or climbing
- LEAVES:** simple; alternate, opposite or whorled
- FLOWERS:** Bisexual or unisexual; hypogynous
- PERIANTH:** Usually absent
- COROLLA:** Usually absent
- STAMENS:** (1-)2–6 (-10)
- CARPELS:** Usually 2
- OVARY:** 1-locular with solitary basal ovule
- FRUIT:** Indehiscent, fleshy or sticky

2.1. FAMILY: PIPERACEAE – the Pepper Family

CHARACTERISTIC FEATURE IF ANY: Aromatic fleshy herbs with jointed nodes; stems showing (in TS) distinct vascular bundles.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA: *Peperomia* and *Piper*

ECONOMIC IMPORTANCE: Various species of *Piper* are sources of the Ethiopian spice, KONDOBERBERE.

2.1. FAMILY: PIPERACEAE – the Pepper Family



3. ORDER PAPAVERALES

3.1. FAMILY: PAPAVERACEAE (incl. Fumariaceae) – The Poppy Family

COMMON CHARACTERS

HABIT: herbs

LEAVES: simple to compound; alternate or basal

FLOWERS: actinomorphic or zygomorphic;
hypogynous

PERIANTH: 2-3-merous

COROLLA: 4 or 6 petals

STAMENS: 6, diadelphous or numerous and whorled

CARPELS: 2-many

OVARY: 1-locular

FRUIT: Capsule, occasionally a nut

3.1. FAMILY: PAPAVERACEAE (incl. Fumariaceae) – The Poppy Family

CHARACTERISTIC FEATURE (IF ANY): Annual or perennial herbs with watery or colored sap and pinnately lobed or dissected leaf.

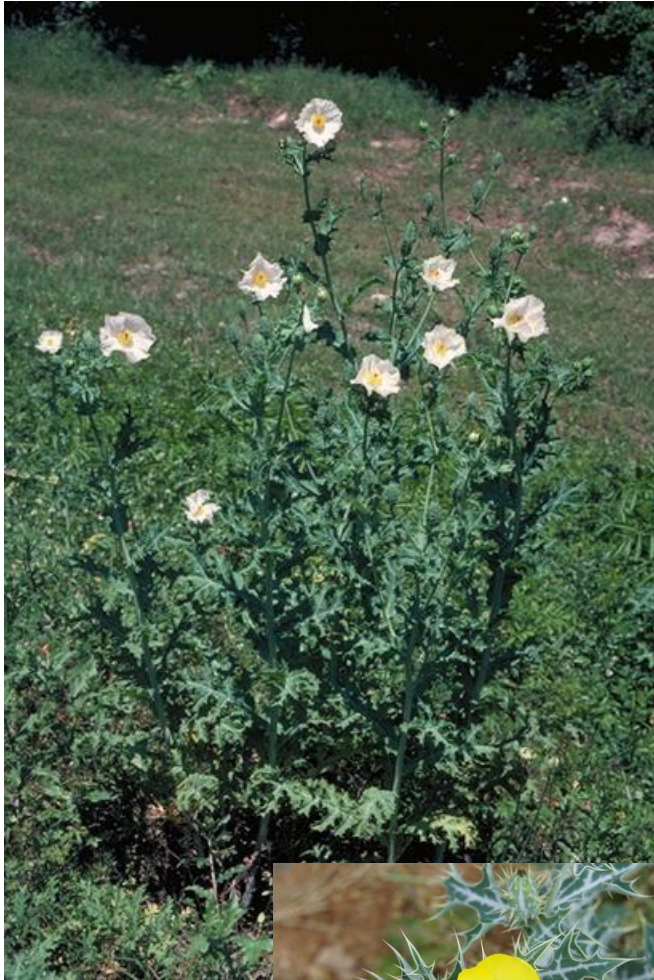
EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Argemone*, *Corydalis*, *Fumaria* and *Papver*.

ECONOMIC IMPORTANCE: They are source of drugs. For. E.g. the unripe fruits of *Papver somniferum* (opium poppy) is the source of Opium and opium derivatives such as morphine, codeine and heroin. They also serve as ornamental plants (*Argemone mexicana*) and *Corydalis*.

3.1. FAMILY: PAPAVERACEAE (incl.

Fumariaceae) – The Poppy Family



4. ORDER CARYOPHYLLALES

4.1. FAMILY: Caryophyllaceae – The Pink Family

COMMON CHARACTERS

HABIT:	Herbs (annual or perennial)
LEAVES:	Simple; opposite, decussate
FLOWERS:	actinomorphic; hypogynous
PERIANTH:	5 occasionally 4-merous, rarely absent
COROLLA:	5 occasionally 4-free petals, rarely absent
STAMENS:	5 uniseriate or 10 biseriate
CARPELS:	2-5
OVARY:	1-(3-5)-locular
FRUIT:	Capsular dehiscing by valves or teeth or a thin walled indehiscent utricle

4.1. FAMILY: CARYOPHYLLACEAE – The Pink Family

CHARACTERISTIC FEATURE IF ANY: stems commonly with swollen nodes; Corolla often apically notched.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA: *Arenaria*, *Dianthus*, *Minuartia*, *Silene*, *Sagina*, etc.

ECONOMIC IMPORTANCE: They are used as ornamentals e.g. Carnation, Pink, (*Dianthus*) and are wide spread weeds. *Silene macrosolen* commonly known as WOGERT is used as a fumigant.

4. ORDER CARYOPHYLLALES

4.1. FAMILY: Caryophyllaceae – The Pink Family



4. ORDER CARYOPHYLLALES

4.2. FAMILY: CACTACEAE – The Cactus Family

COMMON CHARACTERS

- HABIT:** Herbs (succulent, fleshy stems) or to small trees (South America)
- LEAVES:** Simple, sometimes scale-like; alternate
- FLOWERS:** Actinomorphic to Zygomorphic; epigynous
- PERIANTH:** Numerous intergrading sepaloid to petaloid tepals
- COROLLA:** See above
- STAMENS:** Numerous; spirally arranged
- CARPELS:** 3-many carpels
- OVARY:** 1-locular
- FRUIT:** Berry usually spiny or bristly.

4.1. FAMILY: CACTACEAE – The Cactus Family

CHARACTERISTIC FEATURE IF ANY: reduced or absent, leaves with specialized axillary bud areas (areoles) bearing spines; solitary and showy flowers; numerous stamens and tepals.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA: *Cactus*, *Opuntia*, *Rhipsalis*,

ECONOMIC IMPORTANCE: The fruits are used as a source of food. *Opuntia ficus-indica* (BELES; KULKUAL).

4.1. FAMILY: CACTACEAE – The Cactus Family



4. ORDER CARYOPHYLLALES

4.3. FAMILY: CHENOPODIACEAE – The Goosefoot Family

COMMON CHARACTERS

HABIT:	Herbs or shrubs
LEAVES:	Simple, commonly succulent; alternate
FLOWERS:	Often actinomorphic; hypogynous
PERIANTH:	5-tepals (5-merous)
COROLLA:	see above
STAMENS:	5, opposite the tepals
CARPELS:	2-3
OVARY:	1-locular
FRUIT:	Achene or utricle

4.3. FAMILY: CHENOPODIACEAE – The Goosefoot Family

CHARACTERISTIC FEATURE IF ANY: usually growing in xeric and salty habitat; flowers minute on dense cymose inflorescence; 5 uniseriate.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA: *Atriplex*, *Beta*, *Chenopodium*, *Halothamnus*, *Salsola*, *Suaeda* etc.

ECONOMIC IMPORTANCE: They are important sources of root and leafy vegetables e.g. The cultivated *Beta vulgaris* is cultivated as a source of a root crop – the Beetroot (KEY SIR) characterised by the deep red roots and as a leaf crop – CHARD or COSTA GOMEN recognised by the erect leaves.

4.3. FAMILY: **CHENOPODIACEAE** – The Goosefoot Family



4. ORDER CARYOPHYLLALES

4.4. FAMILY: AMARANTHACEAE – The Amaranth or Pigweed Family

COMMON CHARACTERS

HABIT: Herbs or shrubs.

LEAVES: Simple; alternate or opposite

FLOWERS: Actinomorphic; hypogynous

PERIANTH: 3, 4 or most commonly 5-merous tepals;
uniseriate and basally connate

COROLLA: see above

STAMENS: 5 opposite the tepals

CARPELS: 2-3

OVARY: 1-locular, compressed

FRUIT: Utricle, achene or circumscissile capsule

4. ORDER CARYOPHYLLALES
4.4. FAMILY: AMARANTHACEAE
– The Amaranth or Pigweed Family

CHARACTERISTIC FEATURE IF ANY: herbaceous to shrubby plants with reddish stems; minute flowers on dense cymose inflorescences subtended by scarious bracts.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA:

Achyranthus, Aerva, Amaranthus, Celosia, Iresine, etc.

ECONOMIC IMPORTANCE: They are a source of edible greens and pseudocereal. The seeds of *Amaranthus* species are used as a source of cereals during famine periods in Ethiopia.

Amaranthus hybridus, Celosia spp. and Iresine herbstii are used as ornamentals.

4.4. FAMILY: Amaranthaceae – The Amaranth or Pigweed Family



4. ORDER CARYOPHYLLALES
4.4. FAMILY: AMARANTHACEAE
– The Amaranth or Pigweed Family

COMMON CHARACTERS

- HABIT:** Herbs or shrubs.
- LEAVES:** Simple; alternate or opposite
- FLOWERS:** Actinomorphic; hypogynous
- PERIANTH:** 3, 4 or most commonly 5-merous tepals;
uniseriate and basally connate
- COROLLA:** see above
- STAMENS:** 5 opposite the tepals
- CARPELS:** 2-3
- OVARY:** 1-locular, compressed
- FRUIT:** Utricle, achene or circumscissile capsule

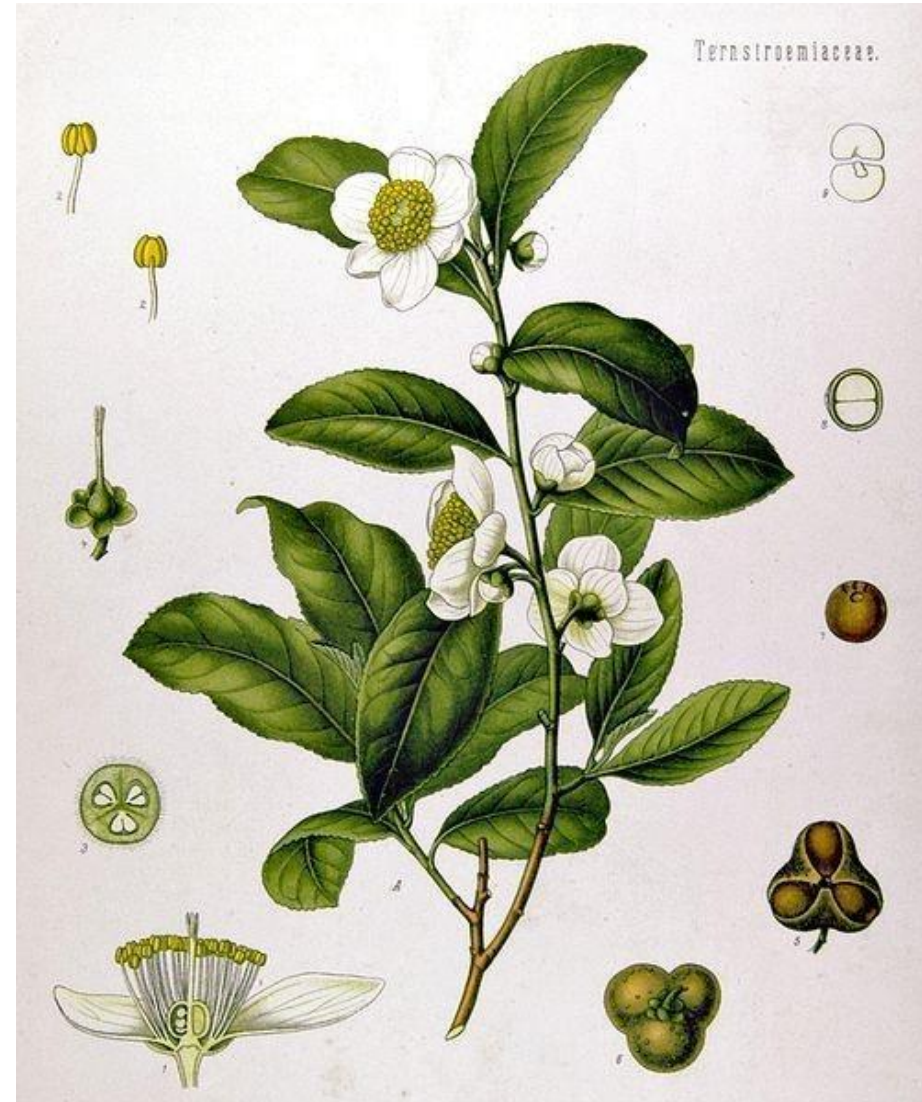
5.1 FAMILY: THEACEAE – The Camellia or Tea Family

CHARACTERISTIC FEATURE (IF ANY): trees or shrubs with with simple, leathery, serrate leaves; 5-merous flowers; loculicidal capsule with a persistent central column, woody. Tissues with tannin and calcium oxalate crystals.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Camellia*.

ECONOMIC IMPORTANCE: They are source of commercial tea leaves and tea-seed oil from *Camellia (Thea) sinensis*.

5.1 FAMILY: THEACEAE – The Camellia or Tea Family



6. ORDER AQUIFOLIALES

6.1 FAMILY: AQUIFLOIACEAE – The Holly Family

COMMON CHARACTERS

HABIT:	Trees or shrubs
LEAVES:	Simple, commonly spiny; alternate
FLOWERS:	Actinomorphic; hypogynous
PERIANTH:	4-5-merous
COROLLA:	4-5 petals
STAMENS:	4-5 stamens
CARPELS:	4-7 carpellate
OVARY:	With as many locules as carpels
FRUIT:	Drupe with 4-7 pyrenes (stones)

6.1 FAMILY: AQUIFLOIACEAE – The Holly Family

CHARACTERISTIC FEATURE (IF ANY): trees or shrubs often with spiny leaf margins; often 4-merous

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: It is a monotypic family with the genus *Ilex*.

ECONOMIC IMPORTANCE: Tea with high caffeine content from *I. paraguariensis* (yerbe mate) and fine white hard woods from several *Ilex* species. Several ornamental shrubs such as *I. aquifolium* (English or European Holly) and *I. opaca* (American Holly).

6.1 FAMILY: AQUIFLOIACEAE – The Holly Family



7. ORDER GUTIFERALES

7.1 FAMILY: HYPERICACEAE/CLUSIACEAE/GUTIFERAE – St John's wort Family

COMMON CHARACTERS

HABIT:	Trees or shrubs including perennial herbs
LEAVES:	Simple; opposite or whorled
FLOWERS:	Actinomorphic; usually hypogynous
PERIANTH:	2-6 merous
COROLLA:	4-12 petals
STAMENS:	4-numerous, usually distinct to connate
CARPELS:	3-5 carpellate
OVARY:	1-3(-5) locular
FRUIT:	Septicidal or sometimes a berry or a drupe.

7.1 FAMILY: HYPERICACEAE/CLUSIACEAE/GUTIFERAE – St John's wort Family

CHARACTERISTIC FEATURE (IF ANY): trees or shrubs or perennial herbs with resinous sap; opposite translucent or black punctate leaves; 4-5 merous, often yellow petals and numerous fascicled stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Hypericum and *Garcinia*.

ECONOMIC IMPORTANCE: They are source of edible fruits from *Garcinia* and include also ornamental plants e.g. in the genus *Hypericum* and *Clusia*.

7.1 FAMILY: HYPERICACEAE/CLUSIACEAE/GUTIFERAE – St John's wort Family



8. ORDER SARRACENIALES

8.1 FAMILY: DROSERACEAE

COMMON CHARACTERS

HABIT:	Herbs
LEAVES:	Variously modified to trap and digest insects; opposite or whorled
FLOWERS:	Actinomorphic; usually hypogynous
PERIANTH:	4-merous
COROLLA:	4-8 petals
STAMENS:	5-20 in one or more whorls
CARPELS:	3-5
OVARY:	1- locular with numerous ovules
FRUIT:	Loculicidal capsule

8.1 FAMILY: DROSERACEAE

CHARACTERISTIC FEATURE (IF ANY): growing in characteristically nutrient poor habitats with where their highly evolved insect trapping mechanisms provide extra essential nutrients

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Drosera.

ECONOMIC IMPORTANCE:

8.1 FAMILY: DROSERACEAE



Drosera indica



9. ORDER ERICALES

9.1. FAMILY: ERICACEAE – The Heath Family

COMMON CHARACTERS

- HABIT:** Shrubs to small trees or perennial herbs
- LEAVES:** Simple; alternate
- FLOWERS:** Actinomorphic or slightly zygomorphic; hypogynous to epigynous, nectariferous disc
- PERIANTH:** 4-5-merous
- COROLLA:** 4-5 petals
- STAMENS:** 8-10, biseriate with the outer whorl opposite the petals, inserted on the edge of disc
- CARPELS:** 4-5 carpellate
- OVARY:** With many locules as carpels
- FRUIT:** Loculicidal or septicidal

9. ORDER ERICALES

9.1. FAMILY: ERICACEAE – The Heath Family

CHARACTERISTIC FEATURE (IF ANY): Acidophilic (acidic soils) shrubby plants with mycorrhizal roots; coriaceous evergreen leaves; sympetalous 4-5 merous campanulate to urceolate corolla; inverted anthers often dehiscent often dehiscent by “apical pores”.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Agauria*, *Blaeria*, *Erica*.

ECONOMIC IMPORTANCE: Fruits from *Vaccinium* spp. (blue berries and crane berries).

9.1. FAMILY: ERICACEAE – The Heath Family



10. ORDER EBENALES

10.1. FAMILY: EBENACEAE – The Ebony Family

COMMON CHARACTERS

HABIT:	Shrubs or trees
LEAVES:	Simple; alternate
FLOWERS:	Actinomorphic; hypogynous; usually unisexual
PERIANTH:	5-merous
COROLLA:	5-lobed; sympetalous
STAMENS:	2-many
CARPELS:	2-many
OVARY:	syncarpous with 2 ovules in each locule
FRUIT:	Berry

10. ORDER EBENALES

10.1. FAMILY: EBENACEAE – The Ebony Family

CHARACTERISTIC FEATURE (IF ANY): Heartwood in some taxa black (Ebony of commerce); Sepals and petals fused at the base (gamosepalous and gamopetalous respectively); flowers unisexual.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Euclea* and *Diospyros*.

ECONOMIC IMPORTANCE: They are source of timber trees e.g. *Diospyros* spp.

10.1. FAMILY: EBENACEAE – The Ebony Family



10.2 FAMILY: SAPOTACEAE – The Sapodilla or sapote Family

COMMON CHARACTERS

HABIT: trees or shrubs

LEAVES: simple; alternate sometimes pseudo-verticillate

FLOWERS: actinomorphic; hypogynous

PERIANTH: 5 uniseiate or 2-3 merous (biseriate)

COROLLA: Sympetalous with often 5 or 4-6 lobes

STAMENS: 8 to 15 stamens in 2 or 3 whorls of 4 or 5

CARPELS: 4 or 5 carpels

OVARY: 4- or 5-locular; 1 ovule in each locule

FRUIT: Berry

10.2 FAMILY: SAPOTACEAE – The Sapodilla or sapote Family

CHARACTERISTIC FEATURE (IF ANY): Presence of a milky sap; thick sympetalous corolla; 2 or 3 whorls of epipetalous stamens.

EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Manilkara*, *Mimusops*, *Pouteria* (known previously as *Aningeria*) and *Spinuluma* (known previously as *Sideroxylon*).

ECONOMIC IMPORTANCE: They are source of timber. For. e.g. the timber from *Pouteria adolfi-fiedericii* (known before as *Aningeria*). The fruits of *Mimusops kummel* is edible.

10.2 FAMILY: SAPOTACEAE – The Sapodilla or sapote Family



12. ORDER MALVALES

12.1 FAMILY: MALVACEAE – The Mallow Family

COMMON CHARACTERS

HABIT: Herbs or shrubs to small trees

LEAVES: Simple; alternate

FLOWERS: Actinomorphic; hypogynous

PERIANTH: 5-merous

COROLLA: 5 petals

STAMENS: Numerous

CARPELS: 2-many

OVARY: 2- to many-locular with 1 to many ovules per
locule

FRUIT: Capsule or schizocarp

12.1 FAMILY: MALVACEAE – The Mallow Family

CHARACTERISTIC FEATURE (IF ANY): flowers often with epicalyx (whorl of bracts), monadelphous stamens.

EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Abelmoschus*, *Abutilon*, *Gossypium*, *Hibiscus*, *Malva* and *Sida*.

ECONOMIC IMPORTANCE: Cotton obtained from the seeds of *Gossypium*; fiber from *Abutilon* (China Jute). They also serve as ornamental plants (*Abutilon* and *Althaea*).

12.1 FAMILY: MALVACEAE – The Mallow Family



12.2 FAMILY: STERCULIACEAE – The Cocoa Family

COMMON CHARACTERS

- HABIT:** Trees, shrubs or sometimes herbs
- LEAVES:** Simple, sometimes palmately compound; alternate
- FLOWERS:** Actinomorphic or sometimes zygomorphic; hypogynous
- PERIANTH:** 5-merous; biseriate or uniseriate
- COROLLA:** 5 petals when present, often reduced or absent
- STAMENS:** 10 stamens usually biseriate
- CARPELS:** 5-carpel
- OVARY:** 5- or 1-locular with 2 to many ovules in each locule
- FRUIT:** Capsule, a schizocarp, sometimes a berry

12.2 FAMILY: STERCULIACEAE – The Cocoa Family

CHARACTERISTIC FEATURE (IF ANY): Branches with stellate hairs; sepals with fringe of glandular hairs, on adaxial surface; androecium and gynoecium on raised.

EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Byttneria*, *Harmsia*, *Dombeya*, *Melhaniania*, *Sterculia* and *Theobroma*.

ECONOMIC IMPORTANCE: Chocolate, Cola and cocoa butter are obtained from the seeds of *Theobroma cacao*.

12.2 FAMILY: STERCULIACEAE – The Cocoa Family



12.3 FAMILY: TILIACEAE – The Linden Family

COMMON CHARACTERS

HABIT: trees, shrubs or sometimes herbs

LEAVES: simple; alternate

FLOWERS: actinomorphic; hypogynous

PERIANTH: 5-merous

COROLLA: 5 petals

STAMENS: numerous

CARPELS: 2 to 5 carpels

OVARY: 2- to 5-locular; 2 to several ovules per locule

FRUIT: a nut, capsule, schizocarp, or drupe

12.3 FAMILY: TILIACEAE – The Linden Family

CHARACTERISTIC FEATURE (IF ANY): Branches with stellate hairs; (often) numerous.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Corchorus*, *Grewia*, *Sparmannia* and *Triumfetta*.

ECONOMIC IMPORTANCE: The fruits of a number of *Grewia* species in Ethiopia are edible. E. g. *Grewia villosa* and *G. tenax*. Jute from the phloem fibers of *Chorchorus*

12.3 FAMILY: TILIACEAE – The Linden Family



13. ORDER CELASTRALES

13. FAMILY: CELASTRACEAE (incl. Hippocrateaceae) – The Bittersweet or Staff Tree

COMMON CHARACTERS

- HABIT:** Trees, shrubs or vines
- LEAVES:** Simple; opposite or alternate
- FLOWERS:** Actinomorphic; hypogynous, perigynous, to sometimes half-epigynous
- PERIANTH:** 3-5 merous
- COROLLA:** 4 or 5 petals
- STAMENS:** 3 to 5 stamens
- CARPELS:** 2 or 5 carpels
- OVARY:** 2 or 5 locules; 2 to numerous ovules in each locule
- FRUIT:** a capsule or a drupe

3. FAMILY: CELASTRACEAE (incl. Hippocrateaceae) – The Bittersweet or Staff Tree

CHARACTERISTIC FEATURE (IF ANY): Presence of a glandular disc.

EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Catha*, *Elaeodendron*, *Hippocratea*, *Maytenus* and *Salacia*.

ECONOMIC IMPORTANCE: They are source of drugs e.g. the leaves of *Catha edulis*. Species of *Maytenus* were used as a source of medicine (*M. buchananui* a source of maytansine – a compound useful for cancer treatment).

3. FAMILY: CELASTRACEAE (incl. Hippocrateaceae) – The Bittersweet or Staff Tree



14. ORDER URTICALES

14.1 FAMILY: ULMACEAE – The Elm Family

COMMON CHARACTERS

HABIT: trees and shrubs

LEAVES: simple; alternate

FLOWERS: actinomorphic to zygomorphic; hypogynous

PERIANTH: 4 to 8 tepals

COROLLA: absent

STAMENS: 4 to 8 stamens (same as tepals)

CARPELS: 2 carpels

OVARY: 1-locular

FRUIT: a nutlet, samara or drupe

14.1 FAMILY: ULMACEAE – The Elm Family

CHARACTERISTIC FEATURE (IF ANY): Annual or perennial herbs with watery or colored sap.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Celtis and *Trema*.

ECONOMIC IMPORTANCE: The woods of some *Celtis* sp. are used for timber and the fruits of some could be edible.

14.1 FAMILY: ULMACEAE – The Elm Family



Celtis africana



14.2 FAMILY: MORACEAE – The Mulberry Family

COMMON CHARACTERS

HABIT:	Trees, shrubs, or perennial herbs
LEAVES:	Simple; alternate
FLOWERS:	Actinomorphic; hypogynous to epigynous; unisexual
PERIANTH:	4-merous; tepals free or united
COROLLA:	Absent
STAMENS:	1-4
CARPELS:	1 carpel
OVARY:	1-locular
FRUIT:	Achene or a drupe

14.2 FAMILY: MORACEAE – The Mulberry Family

CHARACTERISTIC FEATURE (IF ANY): Flowers unisexual; branches with a milky latex; fruit an achene or a drupe , enclosed in the persisting acrescent perianth or immersed or enclosed in a fleshy receptacle.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Antiaris*, *Dorstenia*, *Ficus*, *Milicia*, *Morus* and *Triplesium*.

ECONOMIC IMPORTANCE: The fruits of *Arthocarpus* (Bread fruit), *Ficus* and *Morus* (mulberry) are edible.

14.2 FAMILY: MORACEAE – The Mulberry Family



14.3 FAMILY: URTICACEAE – The Nettle Family

COMMON CHARACTERS

HABIT:	Herbs or lianas
LEAVES:	Simple; alternate or sometimes opposite
FLOWERS:	Actinomorphic or zygomorphic; hypogynous to epigynous; unisexual
PERIANTH:	(1-)3 to 5 tepals or absent
COROLLA:	Absent
STAMENS:	As many as tepals
CARPELS:	1 carpel
OVARY:	1-locular
FRUIT:	Achene or a drupe

14.3 FAMILY: URTICACEAE – The Nettle Family

CHARACTERISTIC FEATURE (IF ANY): Plants commonly with stinging hairs; fruit an achene enclosed by the persistent perianth.

EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Boehmeria*, *Pilea*, *Droguetia*, *Laprotea*, *Pilea*, *Urtica* (nettle) and *Urera*.

ECONOMIC IMPORTANCE: The leaves of *Urtica* are edible.

14.3 FAMILY: URTICACEAE – The Nettle Family

