

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

15. ORDER RHAMNALES

15.1 FAMILY: Rhamnaceae – The Buckthorn Family

COMMON CHARACTERS

HABIT: Trees, shrubs, or sometimes vines

LEAVES: Simple; alternate

FLOWERS: Actinomorphic; hypogynous to epigynous

PERIANTH: 4-5 merous

COROLLA: 4-5 or absent

STAMENS: 4-5

CARPELS:

OVARY: (1)2-3(-4)-locular

FRUIT: Capsule, schizocarp or a drupe

15. ORDER RHAMNALES

15.1 FAMILY: RHAMNACEAE – The Buckthorn Family

CHARACTERISTIC FEATURE (IF ANY): Flowers with a disc, the stamens opposite the petals or alternate with the sepals.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Berchemia*, *Gouania*, *Helinus*, *Rhamnus* and *Ziziphus*.

ECONOMIC IMPORTANCE: The fruits of some *Ziziphus* species are edible and sold in markets in many parts of the country (as KURKURA); the leaves and stems of *Rhamnus prinoides* (GESHO) are used to give a bitter taste to local alcoholic drinks such as Tella and Tej.

15.1 FAMILY: Rhamnaceae – The Buckthorn Family



16. ORDER EUPHORBIALES

16.1 FAMILY: Euphorbiaceae – The Spurge Family

COMMON CHARACTERS

HABIT:	Trees, shrubs, herbs or vines, sometimes succulent
LEAVES:	simple to compound; alternate or opposite or whorled
FLOWERS:	Actinomorphic; hypogynous
PERIANTH:	(2-) 3-6 (or more-merous)
COROLLA:	Often absent or 5 petals
STAMENS:	1 to numerous stamens
CARPELS:	3 carpels
OVARY:	3-locular; 1 ovule or sometimes 2 in each locule
FRUIT:	Schizocarp

16.1 FAMILY: EUPHORBIACEAE – The Spurge Family

CHARACTERISTIC FEATURE (IF ANY): Branches often with milky or watery latex when cut; Flowers small to minute, unisexual (monoecious or dioecious); fruit commonly 3-locular.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Argemone, *Acalypha*, *Bridellia*, *Croton*, *Euphorbia*, *Flueggea*, *Manihot*, *Phyllanthus*, *Ricinus*, *Sapium*, etc.

ECONOMIC IMPORTANCE: They are source of timbers (*Croton macrostachyus*); Edible oil (*Ricinus communis* - castor-bean. They also serve as ornamental plants (*Synadenium* – African milkbush; *Euphorbia pulcherrima*).

16.1 FAMILY: EUPHORBIACEAE – The Spurge Family



17. ORDER SALICALES

17.1 FAMILY: SALICACEAE – The Willow Family

COMMON CHARACTERS

- HABIT:** trees, shrubs, or sometimes subshrubs
- LEAVES:** simple; alternate
- FLOWERS:** actinomorphic; hypogynous
- PERIANTH:** absent or reduced to disc or 1 or 2 glands
- COROLLA:** absent
- STAMENS:** 2 to numerous stamens
- CARPELS:** 2 to 4 carpels
- OVARY:** 1-locular; numerous ovules
- FRUIT:** a capsule

17. ORDER SALICALES

17.1 FAMILY: SALICACEAE – The Willow Family

CHARACTERISTIC FEATURE (IF ANY): Flowers in narrowly cylindrical spicate or racemose catkins.

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

ECONOMIC IMPORTANCE: The branches of *Salix subserrata* are used as a tooth pick.

17.1 FAMILY: SALICACEAE – The Willow Family



18. ORDER CUCURBITALES

18.1. FAMILY: CUCURBITACEAE – The cucurbit Family

COMMON CHARACTERS

HABIT: Herbs (monoecious and dioecious)

LEAVES: Simple or palmately lobed; alternate

FLOWERS: Actinomorphic, rarely zygomorphic; epigynous

PERIANTH: 5-merous

COROLLA: Usually five united at the base

STAMENS: 2 to numerous stamens

CARPELS: 2 to 3 united carpels or 1 carpel

OVARY: 1-3-locular; one to many ovules

FRUIT: Various, usually fleshy or hard-shelled berry

18. ORDER CUCURBITALES

18.1. FAMILY: CUCURBITACEAE – The cucurbit Family

CHARACTERISTIC FEATURE (IF ANY): Flowers monoecious and dioecious; tendrils inserted to the side of the leaf base; hypanthium (a more or less cup-shaped or tubular extension of the receptacle beneath the calyx) present.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Citrullus*, *Coccinia*, *Cucumis*, *Cucurbita*, *Kedrostis*, *Mormordica*, *Lagenaria* and *Zehneria*.

ECONOMIC IMPORTANCE: The family contains many genera of economic importance as sources of food (*Citrullus lanatus* (Water melon, habab); *Cucurbita pepo* (duba) and *Coccinia abyssinica*, (achote) and *Cucumis* sp.; medicinal e.g. *Cucumis* spp. and containers *Lagenaria siceraria* (qil).

18. ORDER CUCURBITALES

18.1. FAMILY: CUCURBITACEAE – The cucurbit Fam.



19. ORDER BRASSICALES

19.1. FAMILY: Brassicaceae – The Mustard Family

COMMON CHARACTERS

- HABIT:** Herbs (sometimes woody)
- LEAVES:** Simple, sometimes pinnately lobed; alternate
- FLOWERS:** Actinomorphic; hypogynous
- PERIANTH:** 4-merous
- COROLLA:** 4-free petals, usually 2+2 opposite the petals
- STAMENS:** 4 –6 , tetradynamous
- CARPELS:** usually 2
- OVARY:** 2-locular with false septum
- FRUIT:** 2-valved silique (longer than broad) or silicle (wider than long), opening from the base towards the apex

19. ORDER BRASSICALES

19.1. FAMILY: BRASSICACEAE – The Mustard Family

CHARACTERISTIC FEATURE IF ANY: distinct arrangements of the 4-clawed petals in a cross fashion (cruciform), hence the Family name, Cruciferae.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA: *Arabis*, *Brassica*, *Capsela*, *Erucastrum*, *Lepidium*, *Roripa*, etc.

ECONOMIC IMPORTANCE: They are used as vegetable foods and a source of condiments. *Brassica oleracea* (broccoli, cabbage, cauliflower, etc.). *Brassica carinata* (GOMENZER) is a source of edible oil; *Lepidium sativum* (FETO) is used as a condiment. The genus *Sinapis* is a source of yellow mustard.

19.1. FAMILY: Brassicaceae – The Mustard Family



Brassica nigra

19. ORDER BRASSICALES

19.2. FAMILY: CAPPARIDACEAE/CAPPARACEAE – The Caper family

COMMON CHARACTERS

- HABIT:** Herbs, shrubs or trees
- LEAVES:** Simple or often palmately compound; alternate
- FLOWERS:** Actinomorphic or zygomorphic; hypogynous
- PERIANTH:** 2-3-merous
- COROLLA:** 2-6
- STAMENS:** 6 to many
- CARPELS:** Usually 2
- OVARY:** Stipitate with Gynophore, 1-locular with 2-4 ovules
- FRUIT:** Capsule, berry or nut

19.2. FAMILY: Capparidaceae/Capparaceae – The Caper family

CHARACTERISTIC FEATURE IF ANY: The presence of an **androgynophore** which is a raised part of the receptacle carrying both androecium and gynoecium.

✓ an elongation of the floral tissue between the stamens and ovary.

EXAMPLES OF REPRESENTATIVE GENERA IN ETHIOPIA:

Boscia, *Cadaba*, *Capparis*, *Cleome*, *Diptergium*, *Maerua* and *Ritchea*.

ECONOMIC IMPORTANCE: They are of little economic importance, but important parts of the dry land. Thus important ecologically. Flower buds of *Capparis spinosa* (Capers) are edible.

19.2. FAMILY: Capparidaceae/Capparaceae



20. ORDER ZYGOPHYLLALES

20.1 FAMILY: Zygophyllaceae – The Caltrop, Creosote Bush, or *Lignum Vitae* Family

COMMON CHARACTERS

HABIT: Shrubs, herbs

LEAVES: Compound; opposite or alternate

FLOWERS: Actinomorphic; sometimes zygomorphic;
hypogynous

PERIANTH: (4-) 5 merous

COROLLA: (4-) 5 petals

STAMENS: 10 stamens

CARPELS: 5 carpels

OVARY: 5-locular; 2 ovules to many in each locule

FRUIT: Capsule or a schizocarp

20.1 FAMILY: Zygothylaceae

CHARACTERISTIC FEATURE (IF ANY): Plants with stems breaking easily at nodes; ovary with a glandular annular disc.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Fagonia, Kellersonia, Tribulus and Zygothylum.

ECONOMIC IMPORTANCE: Some species of *Zygothylum* (caper bean) are sources of spices. They also serve as ornamental plants (*Zygothylum* and *Tribulus* spp.).

20.1 FAMILY: Zygophyllaceae



21. ORDER GERANIALES

21.1 FAMILY: Oxalidaceae – The Oxalis, Sheep-sorrel, or Wood-sorrel Family

COMMON CHARACTERS

HABIT: herbs, sometimes suffrutescent or shrubs to trees

LEAVES: compound; alternate, sometimes forming a basal rosette

FLOWERS: actinomorphic; hypogynous

PERIANTH: 5-merous

COROLLA: 5

STAMENS: 10 stamens

CARPELS: 5 carpels

OVARY: 5-locular; 1 or more ovules in each locule

FRUIT: a capsule

21. ORDER GERANIALES

21.1 FAMILY: Oxalidaceae – The Oxalis, Sheep-sorrel, or Wood-sorrel Family

CHARACTERISTIC FEATURE (IF ANY): plants with bulbous and tuberous stems and acrid juice; flowers with 5 styles (heterostyly); 5-angled loculicidal capsule.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Averrhoa*, *Biophytum* and *Oxalis*.

ECONOMIC IMPORTANCE: The introduced *Averrhoa* is a source of edible fruit known as *Carabolla* or star fruit; *Biophytum abyssinicum* is used in traditional medicine.

21. ORDER GERANIALES

21.1 FAMILY: Oxalidaceae – The Oxalis, Family



21. ORDER GERANIALES

21.2 FAMILY: Geraniaceae – The Geranium Family

COMMON CHARACTERS

HABIT: Herbs (sometimes suffrutescent) or shrubs

LEAVES: Compound or simple; opposite or alternate

FLOWERS: Actinomorphic to sometimes zygomorphic;
hypogynous

PERIANTH: 5-merous

COROLLA: 5 petals

STAMENS: 10 stamens in 2 whorls

CARPELS: 5 carpels

OVARY: 5-locular; 2 ovules in each locule

FRUIT: Schizocarp

21. ORDER GERANIALES

21.2 FAMILY: Geraniaceae – The Geranium Family

CHARACTERISTIC FEATURE (IF ANY): Flowers commonly in pedunculate false umbels, rarely solitary; fruit a schizocarp often developing a beak (rostrum) and splitting into (4)-5.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Erodium, *Geranium*, *Monsonia* and *Pelargonum*.

ECONOMIC IMPORTANCE: They are source of geranium oil (*Pelargonium odorattisimum*) used in perfumes. They also serve as ornamental plants (*Pelargonium zonale* and species of *Erodium*, *Geranium* and *Monsonia*).

21. ORDER GERANIALES

21.2 FAMILY: Geraniaceae – The Geranium Family



21. ORDER GERANIALES

21.3 FAMILY: Malphigiaceae – The Barbados-cherry or Malpighia Family

COMMON CHARACTERS

HABIT: Mostly woody climbers (vines), shrubs or trees

LEAVES: Simple; opposite

FLOWERS: Zygomorphic; hypogynous

PERIANTH: Absent

COROLLA: 5 petals

STAMENS: 10 stamens in 2 whorls

CARPELS: 3 carpels

OVARY: 3-locular; 1 ovule in each locule

FRUIT: Samara, schizocarp, drupe, or capsule

21. ORDER GERANIALES

21.3 FAMILY: Malphiaceae – The Barbados-cherry or Malpighia Family

CHARACTERISTIC FEATURE (IF ANY):

Branches often with unicellular or sometimes forked medi-fixed hairs; sepals often with glands on the outside; fruit usually winged.

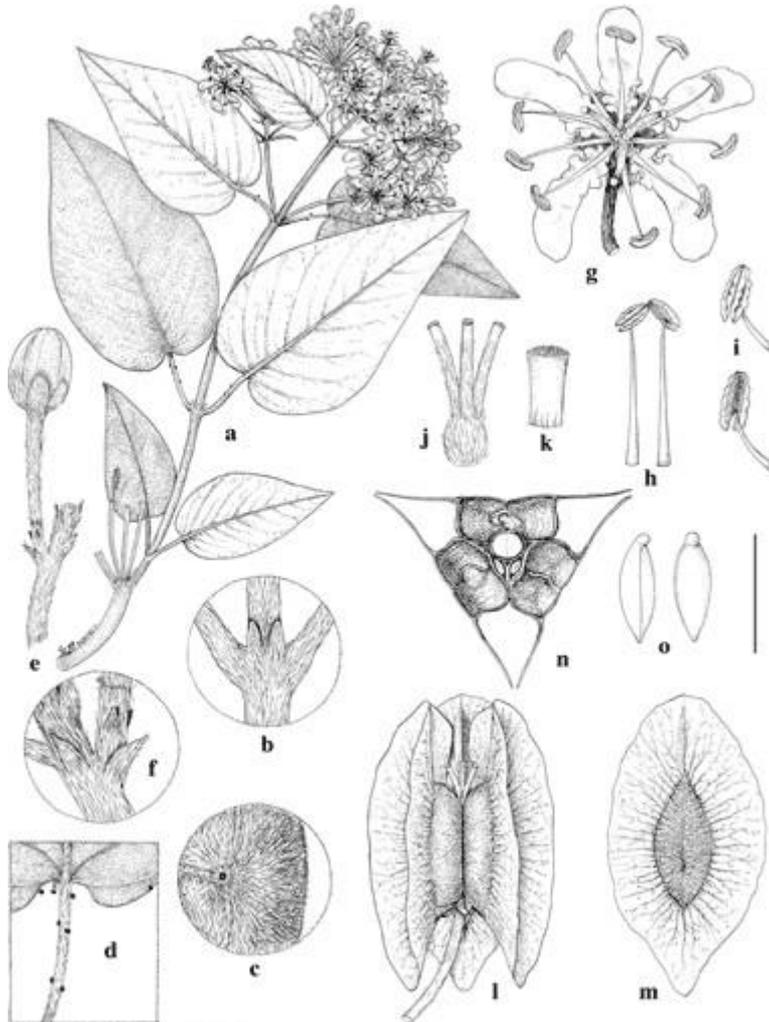
EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Acridocarpus*, *Caucanthus*, *Flabellaria* and *Triaspis*.

ECONOMIC IMPORTANCE: They are source of edible fruits from species of for e.g. *Malpighia* – Barbados cherry.

21. ORDER GERANIALES

21.3 FAMILY: Malphiaceae



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22. ORDER POLYGALALES

22.1 FAMILY: Polygalaceae – The Milkwort Family

COMMON CHARACTERS

HABIT: Herbs, vines or small trees

LEAVES: Simple; alternate

FLOWERS: Zygomorphic; hypogynous

PERIANTH: 5-merous

COROLLA: 3-5 petals

STAMENS: 8 stamens

CARPELS: 2 carpels

OVARY: 1-2(-5)-locular; 1 ovules in each locule

FRUIT: Capsule, samara or drupe

22. ORDER POLYGALALES

22.1 FAMILY: Polygalaceae – The Milkwort Family

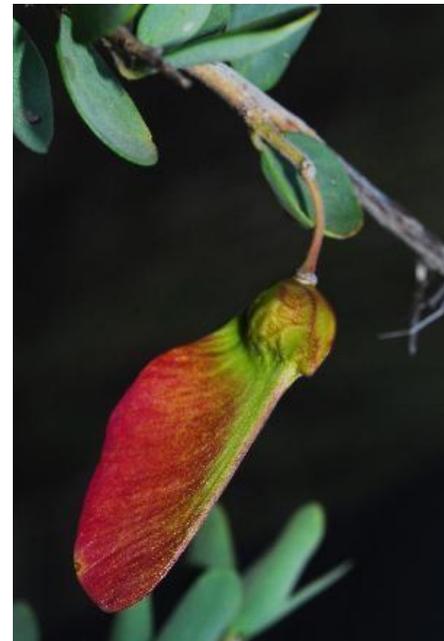
CHARACTERISTIC FEATURE (IF ANY): Flowers with a pair of wings and a keel as in some members of the subfamily Papilionoideae in the family Leguminosae; petals often with fringed appendages.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:
Polygala and *Securidaca*.

ECONOMIC IMPORTANCE: They are used as sources in traditional medicine e.g. roots of *Polygala* species; the twigs and roots of *Securidaca longepedunculata* – ETSE MENAHE.

22. ORDER POLYGALALES

22.1 FAMILY: Polygalaceae – The Milkwort Family



23. ORDER RUTALES

23.1 FAMILY: Rutaceae – The Citrus or Rue Family

COMMON CHARACTERS

- HABIT:** Herbs, shrubs, trees or climbers
- LEAVES:** Simple or compound; alternate or sometimes opposite
- FLOWERS:** Actinomorphic; hypogynous
- PERIANTH:** 4-5 merous
- COROLLA:** 4 or 5 petals
- STAMENS:** 4 or 5 stamens or 8, 10, to numerous stamens
- CARPELS:** 1-5(-18) carpels
- OVARY:** 1-5-locular; 1-2 ovules in each locule
- FRUIT:** Berry, capsule, drupe, samara or schizocarp, or an aggregate of 2 to 5 drupes or follicles

23. ORDER RUTALES

23.1 FAMILY: Rutaceae – The Citrus or Rue Family

CHARACTERISTIC FEATURE (IF ANY): Leaves fragrant or aromatic and showing pellucid dots when viewed against light.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Casimiroa*, *Citrus*, *Clausena*, *Ruta*, *Teclea*, *Vepris* and *Zanthoxylum*.

ECONOMIC IMPORTANCE: They are source of commonly edible fruits from *Citrus* sp. (oranges, grapefruits, tangerins, limes and *Casimiroa edulis* - KASMIR; also the sources of bergamot oil from *Citrus* spp. and oil of rue from *Ruta chalepensis* (TENADAM). Some are used as ornamentals – *Calodendron capense*.

23. ORDER RUTALES

23.1 FAMILY: Rutaceae – The Citrus or Rue Family



24. ORDER SAPINDALES

24.1 FAMILY: Meliaceae – The Mahogany Family

COMMON CHARACTERS

HABIT: shrubs to trees

LEAVES: simple or compound; alternate

FLOWERS: actinomorphic; hypogynous; bisexual or unisexual

PERIANTH: 4-5 stamens; absent

COROLLA: 4 or 5 petals

STAMENS: 8 -10 stamens

CARPELS: 5-carpels

OVARY: carpels; 5-10 locular;

FRUIT: a capsule, a drupe, or sometimes a berry

24. ORDER SAPINDALES

24.1 FAMILY: Meliaceae – The Mahogany Family

CHARACTERISTIC FEATURE (IF ANY): Commonly pinnately lobed or dissected leaf; stamens with partly or wholly fused staminal tube; seeds arillate.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Ekebergia capensis, LOL (Am). SOMBO (Or.), *Lepidotrichilia*, *Trichillia* and *Turraea*. Introduced species include *Azadarichta indica* and *Melia azedarch*.

ECONOMIC IMPORTANCE: The introduced species, *Azadarichta indica* and *Melia azedarch* are used as a source of compounds as insecticides.

24.1 FAMILY: Meliaceae – The Mahogany Family



24. ORDER SAPINDALES

24.2 FAMILY: Anacardiaceae – The Cashew or Sumac Family

COMMON CHARACTERS

HABIT: Trees, shrubs, or vines (climbers)

LEAVES: Compound or sometimes simple; alternate, opposite or whorled

FLOWERS: Actinomorphic; hypogynous; unisexual or bisexual.

PERIANTH: 4-5-merous

COROLLA: 5 petals

STAMENS: 5 stamens

CARPELS: - carpels

OVARY: 1-4-locular; 1 ovule per locule

FRUIT: Drupe

24. ORDER SAPINDALES

24.2 FAMILY: Anacardiaceae – The Cashew or Sumac Family

CHARACTERISTIC FEATURE (IF ANY): Branches often producing gums, resins or latex, often sweetly aromatic when cut.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Lannea*, *Mangifera*, *Ozoroa*, *Pistacia*, *Rhus*, and *Sclerocarya*. Also introduced *Schinus molle*.

ECONOMIC IMPORTANCE: Many species have edible fruits (such as *Mangifera indica* - MANGO).

24. ORDER SAPINDALES

24.2 FAMILY: ANACARDIACEAE – The Cashew or Sumac Family



24. ORDER SAPINDALES

24.3 FAMILY: SAPINDACEAE – The Soapberry Family

COMMON CHARACTERS

- HABIT:** trees, shrubs, or vines (climbers)
- LEAVES:** compound or sometimes simple; alternate
- FLOWERS:** actinomorphic; hypogynous or rarely perigynous or epigynous
- PERIANTH:** 5-merous
- COROLLA:** 5 petals
- STAMENS:** 5 or 10 stamens
- CARPELS:** 3-carpels
- OVARY:** 1-locular
- FRUIT:** a capsule, berry, drupe or samara or a schizocarp.

24. ORDER SAPINDALES

24.3 FAMILY: SAPINDACEAE – The Soapberry Family

CHARACTERISTIC FEATURE (IF ANY): Commonly flowers with extra-staminal disc.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Allophylus*, *Blighia*, *Bottegoa*, *Cardiospermum*, *Dodonaea*, *Lepisanthes*, *Leacanodiscus* and *Pappea*.

ECONOMIC IMPORTANCE: Some of these are used as a source of timber e.g. *Allophylus abyssinicus* (EMBIS (Am.)).

24. ORDER SAPINDALES

24.3 FAMILY: Sapindaceae – The Soapberry Family



25. ORDER FABALES

25.1 FAMILY: FABACEAE OR LEGUMINOSAE – The Legume or Pea Family

COMMON CHARACTERS

HABIT: Herbs, shrubs, trees or lianes

LEAVES: Compound; usually alternate

FLOWERS: Zygomorphic or actinomorphic; perigynous

PERIANTH: 5-merous a or absent

COROLLA: 5 petals, occasionaly fewer or absent

STAMENS: 10 stamens (sometimes fewer or more)

CARPELS: 1-carpel

OVARY: 1-locular; 2 to many ovules in 2 alternating rows

FRUIT: Legume or pod

25. ORDER FABALES

25.1 FAMILY: Fabaceae or Leguminosae – The Pea Family

CHARACTERISTIC FEATURE (IF ANY): The fruit (pod) usually dehiscent in two valves, sometimes only along the upper suture or splitting transversely or rarely indehiscent; placentation marginal.

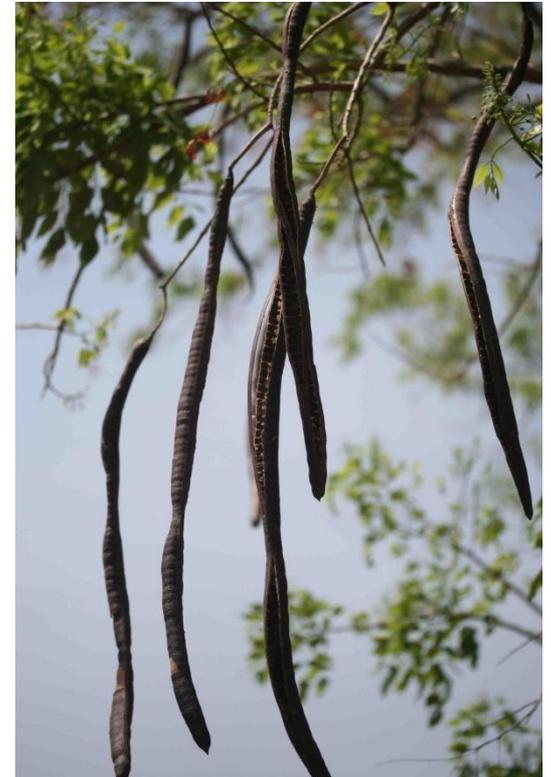
EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Acacia*, *Arachis*, *Cassia*, *Crotalaria*, *Delonix*, *Desmodium*, *Indigofera*, *Lupinus*, *Medicago*, *Pterolobium*, *Senna*, *Trifolium*, and etc.

ECONOMIC IMPORTANCE: This is one of the most important families economically used for food (*Arachis hypogea* – ground nut, OCHOLONI, LEWIZ (Am); *Lupinus termis* – Lupin, GIBTO (Am.); *Pisum sativum* – pea, ATER (Am.); *Vicia faba* - bean, (BAKELA (Am.), etc), forage (*Medicago*, *Trifolium*), gums and resins (*Acacia senegal*), medicine and ornament (*Delonix regia* – YEDIREDAWA ZAF); source of fire wood and charcoal.

25. ORDER FABALES

25.1 FAMILY: FABACEAE OR LEGUMINOSAE

– Subfamily Caesalpinioideae



25. ORDER FABALES
25.1 FAMILY: FABACEAE OR LEGUMINOSAE
– Subfamily Mimosoideae



25. ORDER FABALES

25.1 FAMILY: FABACEAE OR LEGUMINOSAE

– Subfamily Papilionoideae



26. ORDER ROSALES

26.1 FAMILY: Rosaceae – The Rose Family

COMMON CHARACTERS

- HABIT:** Trees, shrubs or herbs
- LEAVES:** Simple or compound; usually alternate
- FLOWERS:** Actinomorphic;
- PERIANTH:** 5-merous or absent
- COROLLA:** 5 petals or absent
- STAMENS:** 1 to numerous stamens in several whorls
- CARPELS:** 1 to many carpels
- OVARY:** as many as the carpels
- FRUIT:** Drupe or pome

26. ORDER ROSALES

26.1 FAMILY: Rosaceae – The Rose Family

CHARACTERISTIC FEATURE (IF ANY): Flowers with well developed receptacles.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Hagenia, *Rosa*, *Rubus*. A number of genera are introduced as source of fruits: *Eriobotrya*, *Malus*, *Rubus* and *Pyrus*.

ECONOMIC IMPORTANCE: Flowers of *Hagenia abyssinica* (KOSSO – Am. are used as sources of a taenicide. A number of species serve as the source of fruits: *Rubus*, *Prunus*, *Eriobotrya japonica* (WESHMELA – Am.) and some are important source of timber *Prunus africana* (TIKUR ENCHET – Am.).

26. ORDER ROSALES

26.1 FAMILY: Rosaceae – The Rose Family



ORDER UMBELLIFERALES

27.1 FAMILY: Apiaceae or Umbelliferae – The Carrot or Parsley Family

COMMON CHARACTERS

- HABIT:** Herbs, or shrubs to trees
- LEAVES:** Compound or sometimes simple; alternate
- FLOWERS:** Actinomorphic;
- PERIANTH:** 5-merous
- COROLLA:** 5 petals
- STAMENS:** 5 stamens
- CARPELS:** 2 or 5 carpels
- OVARY:** as many locules as carpels; 1 ovules in each locule
- FRUIT:** Schizocarp or a drupe

ORDER UMBELLIFERALES

27.1 FAMILY: Apiaceae or Umbelliferae – The Carrot or Parsley Family

CHARACTERISTIC FEATURE (IF ANY): Plants often aromatic; inflorescence umbellate.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Dacus carota* (KAROT – Am.), *Coriandrum*, *Ferrula*, *Foeniculum*, *Pimpinella*, etc.

ECONOMIC IMPORTANCE: These are important sources of species: *Anethum* (Dill); *Coriandrum sativum* (Coriander, DIMBILAL – Am.); *Foeniculum vulgare* (Fennel, ENSILAL – Am.), etc.

ORDER UMBELLIFERALES

27.1 FAMILY: Apiaceae or Umbelliferae – The Carrot or Parsley Family



28. ORDER ASTERALES

28.1 FAMILY: Asteraceae/Compositae – The Aster, Composite, or Sunflower Family

COMMON CHARACTERS

- HABIT:** Herbs or sometimes shrubs or trees
- LEAVES:** Simple; alternate or sometimes opposite
- FLOWERS:** Actinomorphic or zygomorphic
- PERIANTH:** 5-merous
- COROLLA:** 5 lobes
- STAMENS:** 5 stamens
- CARPELS:** 2 carpels
- OVARY:** 1-locular
- FRUIT:** Achene

28. ORDER ASTERALES

28.1 FAMILY: Asteraceae/Compositae – The Aster, Composite, or Sunflower Family

CHARACTERISTIC FEATURE (IF ANY): A head inflorescence commonly with ray and disc florets.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Anthemis*, *Artemisia*; *Aster*, *Carthamus*; *Guizotia*; *Helianthus*; *Inula*, *Lactuca*, *Laggera*, *Senecio*, *Vernonia*, etc.

ECONOMIC IMPORTANCE: They are source of food and edible oil: *Helianthus annuus* (sunflower, YEFERENJ SUF – Am.), *Guizotia abyssinica* (NOUG – Am.); *Carthamus tinctorius* (safflower, YABESHA SUF – Am.), *Lactuca* – lettuce; some are sources of Aromatic plants e.g. *Artemisia afra* (CHIKUGN – Am.) *A. rehan* (ARITI – Am.); some others are used as ornamentals e.g. *Tagetes minuta* (French Marigold).

28. ORDER ASTERALES

28.1 FAMILY: Asteraceae/Compositae – The Aster, Composite, or Sunflower Family



29. ORDER CAMPANULALES

29.1 FAMILY: Campanulaceae – The Bellflower Family

COMMON CHARACTERS

HABIT: Herbs or sometimes shrubs

LEAVES: Simple; alternate

FLOWERS: Actinomorphic or zygomorphic

PERIANTH: 5-merous

COROLLA: 5 lobes

STAMENS: usually 5 stamens

CARPELS: 2, 3, or 5 carpels

OVARY: as many locules as carpels; numerous ovules

FRUIT: Capsule or a berry

29. ORDER CAMPANULALES

29.1 FAMILY: Campanulaceae – The Bellflower Family

CHARACTERISTIC FEATURE (IF ANY): Presence of a milky latex or watery sap.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Campanula* and *Lobelia*.

ECONOMIC IMPORTANCE: They are used as ornamentals e.g. *Lobelia rhynchopetalum*, *L. giberoa* (JIBIRA – Am.).

29. ORDER CAMPANULALES

29.1 FAMILY: Campanulaceae – The Bellflower Family



30. ORDER SOLANALES

30.1 FAMILY: Solanaceae – The Nightshade Family

COMMON CHARACTERS

HABIT: Herbs or sometimes shrubs or trees

LEAVES: Simple; alternate

FLOWERS: Actinomorphic; hypogynous

PERIANTH: 5-merous

COROLLA: 5 lobes

STAMENS: 5 stamens

CARPELS: 2 carpels

OVARY: 2-locular; numerous ovules

FRUIT: Berry or a capsule

30. ORDER SOLANALES

30.1 FAMILY: Solanaceae – The Nightshade Family

CHARACTERISTIC FEATURE (IF ANY): Sympetalous flowers with epipetalous stamens; anthers opening longitudinally or by pores. They also have a persistent calyx.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Capsicum*, *Lycium*, *Nicandra*, *Physalis* and *Solanum*.

ECONOMIC IMPORTANCE: They are source of food crops (Capsicum – red or green peppers); *Lycopersicon esculentum* – tomato and *Solanum tuberosum* - potato; *Solanum melangena* – egg plant; drugs; wild foods (*Physalis peruviana* – Awit – Am.). They also serve as ornamental plants (*Cestrum purpureum*, *C. parqui*, *Cyphomandra betacea*, *Petunia x hybrida*, *Physalis* and *Solanandra* spp).

30. ORDER SOLANALES

30.1 FAMILY: Solanaceae – The Nightshade Family



31. ORDER POLEMONIALES

31.1 FAMILY: BORAGINACEAE – The Borage Family

COMMON CHARACTERS

- HABIT:** herbs or sometimes shrubs or trees
- LEAVES:** simple; alternate (lower ones sometimes opposite)
- FLOWERS:** actinomorphic to zygomorphic; hypogynous
- PERIANTH:** 5-merous
- COROLLA:** 5 lobes
- STAMENS:** 5 stamens
- CARPELS:** 2 carpels
- OVARY:** 2-locular but becoming 4-locular; 4 ovules
- FRUIT:** a schizocarp or a drupe

31. ORDER POLEMONIALES

31.1 FAMILY: BORAGINACEAE – The Borage Family

CHARACTERISTIC FEATURE (IF ANY): Leaves and young branches often scabrid or hispid; inflorescence inflorescence circinate, helicoid and often one-sided.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Cordia*, *Cynoglossum*, *Ehretia*, *Heliotropium* and *Lithospermum*.

ECONOMIC IMPORTANCE: They are source of timber *Cordia* and *Ehretia* spp. They also serve as ornamental plants (*Myositis*, *Heliotropium* spp.).

31. ORDER POLEMONIALES

31.1 FAMILY: BORAGINACEAE – The Borage Family



31. ORDER POLEMONIALES

31.2 FAMILY: CONVULVULACEAE – The Morning-glory Family

COMMON CHARACTERS

HABIT: herbs, climbers, shrubs or trees

LEAVES: simple sometimes compound; alternate

FLOWERS: actinomorphic to zygomorphic; hypogynous

PERIANTH: 4-5 merous

COROLLA: 5 lobed

STAMENS: 5 stamens

CARPELS: 2 carpels

OVARY: 2- 4-locular; 2-4 ovules in each locule

FRUIT: capsule (rarely indehiscent)

31. ORDER POLEMONIALES

31.2 FAMILY: Convolvulaceae – The Morning-glory Family

CHARACTERISTIC FEATURE (IF ANY): Tubular corolla with the stamens inserted to the corolla tube; some genera have two or more styles that are forked or with complicated stigma.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Astripomoea*, *Convolvulus*, *Cladostigma*, *Evolvulus*, *Falkia*, *Hildebrandtia*, *Ipomoea*, *Merremia*, *Nephrphylum*, *Seddera*, *Stictocardia*, etc.

ECONOMIC IMPORTANCE: They are source of edible tubers e.g. *Ipomoea batatas* –SIQUAR DINCH. They also serve as ornamental plants (*Ipomoea acuminata*, *I. purpurea*, *I. tricolor*, etc. and *Merremia* spp.

31. ORDER POLEMONIALES

31.2 FAMILY: Convolvulaceae – The Morning-glory Family



32. ORDER MYRTALES

32.1 FAMILY: Onagraceae – The Evening-primrose Family

COMMON CHARACTERS

HABIT: herbs or sometimes shrubs or trees

LEAVES: simple; alternate, opposite

FLOWERS: actinomorphic or sometimes zygomorphic;
epigynous

PERIANTH: 4-merous (commonly)

COROLLA: 4 petals or absent

STAMENS: 8 or sometimes 4 stamens

CARPELS: 4 carpels

OVARY: 4-locular; several to numerous ovules in each
locule

FRUIT: a capsule or sometimes a berry or nutlet

32. ORDER MYRTALES

32.1 FAMILY: Onagraceae – The Evening-primrose Family

CHARACTERISTIC FEATURE (IF ANY): 4-merous epigynous flowers with short to elongate hypanthium.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Epilobium*, *Fuchsia*, *Ludwigia* and *Oenothera*.

ECONOMIC IMPORTANCE: They serve as ornamental plants (*Fuchsia hybrida* lady's eardrops) and *Oenothera* – evening primrose.

32. ORDER MYRTALES

32.1 FAMILY: Onagraceae – The Evening-primrose Family



32. ORDER MYRTALES

32.2 FAMILY: Myrtaceae – The Myrtle Family

COMMON CHARACTERS

HABIT: trees or shrubs

LEAVES: simple; opposite or alternate

FLOWERS: actinomorphic; zygomorphic

PERIANTH: 4-5 merous

COROLLA: 4-5 petals

STAMENS: numerous stamens

CARPELS: 5 carpels

OVARY: 2-5-locular; ovules 2 to many in each locule

FRUIT: berry, drupe or capsule

32. ORDER MYRTALES

32.2 FAMILY: Myrtaceae – The Myrtle Family



33. ORDER RUBIALES

33.1 FAMILY: RUBIACEAE – The Coffee or Madder Family

COMMON CHARACTERS

HABIT: trees or shrubs, sometimes lianas, or herbs

LEAVES: simple; opposite

FLOWERS: actinomorphic; epigynous

PERIANTH: 4-5 merous

COROLLA: 4- 5 lobed

STAMENS: 4 -5 stamens

CARPELS: 2 carpels

OVARY: 2-locular; ovules 1 to many in each locule

FRUIT: a capsule, a schizocarp or sometimes a berry or drupe

33. ORDER RUBIALES

33.1 FAMILY: RUBIACEAE – The Coffee or Madder Family

CHARACTERISTIC FEATURE (IF ANY): Opposite leaves with interpetiolar stipules; flowers with tubular corolla and inferior ovary.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

Anthospermum, *Coffea*, *Galium*, *Rubia*, *Pavetta*, *Pentas*, *Psychotria*, *Spermacoce* and *Vangueria*.

ECONOMIC IMPORTANCE: They are source of drinks with alkaloids - coffee (*Coffea arabica*); a source of medicine (the bark of *Cinchona* sp. with antimalarial properties -quinine). They also serve as ornamental plants (*Ixora*, *Pentas* spp.).

33. ORDER RUBIALES

33.1 FAMILY: RUBIACEAE – The Coffee or Madder Family

