

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

## **34. ORDER APOCYNALES**

### **34.1 FAMILY: Apocynaceae – The Dogbane Family (incl. The Asclepiadaceae: The Milkweed Family)**

#### **COMMON CHARACTERS**

**HABIT:** herbs, lianas, shrubs or sometimes trees

**LEAVES:** simple; opposite or whorled

**FLOWERS:** actinomorphic; hypogynous to perigynous

**PERIANTH:** 5-merous

**COROLLA:** 5 lobed

**STAMENS:** 5 stamens

**CARPELS:** 2 carpels

**OVARY:** 1-locular; numerous ovules in each locule

**FRUIT:** berry or drupe

## 34. ORDER APOCYNALES

### 34.1 FAMILY: Apocynaceae – The Dogbane Family (incl. The Asclepiadaceae: The Milkweed Family)

CHARACTERISTIC FEATURE (IF ANY): Leaves and young branches with milky latex; flowers with sympetalous corolla and 5 epipetalous stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Adenium*, *Carissa*, *Catharanthus*, *Landolphia*, *Nerium* and *Saba*.

ECONOMIC IMPORTANCE: They are source of edible fruits e.g. *Carissa spinarum* – AGAM; source of medicine from *Catharanthus roseus* – Madagascar-periwinkle from which the anti-cancer agent – vincristine is extracted. They also serve as ornamental plants (*Catharanthus roseus*, *Nerium oleander*).

## 34. ORDER APOCYNALES

### 34.1 FAMILY: APOCYNACEAE – The Dogbane Family



## 34. ORDER APOCYNALES

### 34.1 FAMILY: The ASCLEPIADACEAE - The Milkweed Family)



## **35. ORDER GENTIANALES**

### **35.1 FAMILY: GENTIANACEAE – The Gentian Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs, or sometimes shrubs to trees

**LEAVES:** simple; opposite

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 4-5 merous

**COROLLA:** 4-5 lobed

**STAMENS:** 4-5 stamens

**CARPELS:** 2 carpels

**OVARY:** 1- or occasionally 2-locular; numerous ovules

**FRUIT:** a capsule

## 35. ORDER GENTIANALES

### 35.1 FAMILY: GENTIANACEAE – The Gentian Family

CHARACTERISTIC FEATURE (IF ANY): Herbaceous plants with winged stems; campanulate corolla of various colours; epipetalous stamens; septicidal capsules with many small seeds.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Cansora*, *Centaurium*, *Sebaea* and *Swertia*.

ECONOMIC IMPORTANCE: They also serve as ornamental plants (Centaurium – centaury; Gentiana – gentian; Sabatia – rose-pink).

## 35. ORDER GENTIANALES

### 35.1 FAMILY: GENTIANACEAE – The Gentian Family





## **36. ORDER OLEALES**

### **36.1 FAMILY: OLEACEAE – The Olive Family**

#### **COMMON CHARACTERS**

- HABIT:** trees, shrubs or sometimes lianas
- LEAVES:** simple or compound; opposite
- FLOWERS:** actinomorphic; hypogynous
- PERIANTH:** 4-merous
- COROLLA:** 4 lobed petals
- STAMENS:** 2 stamens
- CARPELS:** 2 carpels
- OVARY:** 2-locular; usually 2 ovules in each locule
- FRUIT:** a drupe, capsule or samara

## 36. ORDER OLEALES

### 36.1 FAMILY: OLEACEAE – The Olive Family

CHARACTERISTIC FEATURE (IF ANY): Flowers with sympetalous 4-lobed corolla and 2 stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Chionanthus*, *Jasminum*, *Ligustrum*, *Olea* and *Schrebera*.

ECONOMIC IMPORTANCE: They are source of timber trees e.g. *Olea* species; edible fruits and oil from *Olea europaea* - olive; perfume from several species of *Jasminum* - jasmine. They also serve as ornamental plants (*Jasminum* spp., *Ligustrum vulgare* and *Syringa* spp.).

## 36. ORDER OLEALES

### 36.1 FAMILY: OLEACEAE – The Olive Family



## **37. ORDER SCROPHULARIALES**

### **37.1 FAMILY: BIGNONIACEAE – The Bignonia or Trumpet Vine Family**

#### **COMMON CHARACTERS**

**HABIT:** trees, shrubs or vines

**LEAVES:** simple or compound; opposite or occasionally whorled

**FLOWERS:** zygomorphic; hypogynous

**PERIANTH:** 5-merous

**COROLLA:** 5 lobed

**STAMENS:** 4 stamens and 1 staminode

**CARPELS:** 2 carpels

**OVARY:** 2-locular or occasionally 1-locular; numerous ovules

**FRUIT:** capsule, berry or pod

## 37. ORDER SCROPHULARIALES

### 37.1 FAMILY: BIGNONIACEAE – The Bignonia or Trumpet Vine Family

CHARACTERISTIC FEATURE (IF ANY): Commonly with opposite and compound leaves; 4 epipetalous stamens and one staminode; 2-valved woody capsular fruit and winged seeds.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Jacaranda*, *Kigelia*, *Pyrostegia*, *Stenolobium* and *Stereospermum*.

ECONOMIC IMPORTANCE: They also serve as ornamental plants (Bignonia – cross vine or trumpet-flower; *Jacaranda mimosifolia*, *Stenolobium stans*; *Pyrostegia venusta* – flame vine)

## 37. ORDER SCROPHULARIALES

### 37.1 FAMILY: BIGNONIACEAE – The Bignonia or Trumpet Vine Family



## **37. ORDER SCROPHULARIALES**

### **37.2 FAMILY: Scrophulariaceae – The Figwort or Snapdragon Family (incl. The Orobanchaceae: Broomrape Family)**

#### **COMMON CHARACTERS**

- HABIT:** herbs or sffrutescent, rarely vines, shrubs or trees
- LEAVES:** simple; opposite or alternate
- FLOWERS:** zygomorphic; hypogynous
- PERIANTH:** 4-5-merous
- COROLLA:** 4 or 5 lobed
- STAMENS:** 4 sometimes 5 stamens
- CARPELS:** 2 carpels
- OVARY:** 1- or 2-locular; numerous ovules
- FRUIT:** capsule with septicidal, loculicidal or poricidal dehiscence

## 37. ORDER SCROPHULARIALES

### 37.2 FAMILY: Scrophulariaceae – The Figwort or Snapdragon Family (incl. The Orobanchaceae: Broomrape Family)

CHARACTERISTIC FEATURE (IF ANY) Corolla sympetalous; stamens epipetalous; capsule with many small seeds.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Alectra*, *Bartsia*, *Buchnera*, *Craterostigma*, *Cycnium*, *Digitalis*, *Halleria*, *Hedbergia*, *Kickxia*, *Limosella*, *Lindernia*, *Ramphicarpa*, *Scrophularia*, *Sopubia*, *Striga*, *Verbascum* and *Veronica*.

ECONOMIC IMPORTANCE: Some species produce weeds that affect crop production e.g. *Striga* – AKENCHIRA; cardiac glycosides are obtained from *Digitalis*). They serve as ornamental plants (*Antirrhinum* – snapdragon; *Digitalis* – foxglove; *Veronica* – speedwell)



# 37. ORDER SCROPHULARIALES

## 37.2 FAMILY: Scrophulariaceae – The Figwort or Snapdragon Family (incl. The Orobanchaceae: Broomrape Family)



*Orobanche minor*

Photos: B.A. Fuhrer and K.C. Richardson

## **38. ORDER ACANTHALES**

### **38.1 FAMILY: ACANTHACEAE – The Acanthus Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs, vines or sometimes shrubs

**LEAVES:** simple; opposite

**FLOWERS:** zygomorphic; hypogynous

**PERIANTH:** 4-5 merous

**COROLLA:** 2-5 lobed

**STAMENS:** usually 4 or sometimes 2

**CARPELS:** 2 carpels

**OVARY:** 2-locular; 2 to 10 ovules in 2 rows in each locule

**FRUIT:** a capsule

## 38. ORDER ACANTHALES

### 38.1 FAMILY: ACANTHACEAE – The Acanthus Family

CHARACTERISTIC FEATURE (IF ANY): Leaves simple, opposite; flowers 2-lipped with 4 (didynamous) or 2 stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Acanthus*, *Anisotis*, *Asystacia*, *Barleria*, *Crosandra*, *Dicliptera*, *Hygrophila*, *Hypoestes*, *Justicia*, *Ruellia*, *Ruspolia*, *Ruttia*, *Satanocrater*, *Thunbergia* and *Whitefieldia*.

ECONOMIC IMPORTANCE: They are source of dyes yellow dye from *Adhathoda* sp. They serve as ornamental plants (*Asystacia*, *Justicia* and *Thunbergia* spp.).

## 38. ORDER ACANTHALES

### 38.1 FAMILY: ACANTHACEAE – The Acanthus Family



## **39. ORDER LAMIALES**

### **39.1 FAMILY: Verbenaceae – The Verbena Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs, shrubs, or rarely trees or vines

**LEAVES:** simple; opposite or sometimes whorled

**FLOWERS:** zygomorphic; hypogynous

**PERIANTH:** 5-merous

**COROLLA:** 5 lobed

**STAMENS:** 4 stamens

**CARPELS:** 2 carpels

**OVARY:** 2-locular but appearing 4-locular; 1 ovule in each locule

**FRUIT:** drupe, or a schizocarp

## 39. ORDER LAMIALES

### 39.1 FAMILY: Verbenaceae – The Verbena Family

CHARACTERISTIC FEATURE (IF ANY): Leaves simple, opposite with aromatic properties; sympetalous corolla with didynamous stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Aloysia*, *Chascanum*, *Duranta*, *Lantana*, *Lippia*, *Phyla*, *Priva* and *Verbena*.

ECONOMIC IMPORTANCE: They are source of aromatic essential oils from *Aloysia triphylla*; *Lippia* spp.; herbal remedies from *Verbena officinalis* (ATUCH Am.). They also serve as ornamental plants (*Duranta erecta*, *Lantana camara*, *Verbena* spp).

## 39. ORDER LAMIALES

### 39.1 FAMILY: Verbenaceae – The Verbena Family

CHARACTERISTIC FEATURE (IF ANY): Leaves simple, opposite with aromatic properties; sympetalous corolla with didynamous stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Aloysia*, *Chascanum*, *Durantha*, *Lantana*, *Lippia*, *Phyla*, *Priva* and *Verbena*.

ECONOMIC IMPORTANCE: They are source of aromatic essential oils from *Aloysia triphylla*; *Lippia* spp.; herbal remedies from *Verbena officinalis* (ATUCH Am.). They also serve as ornamental plants (*Duranta erecta*, *Lantana camara*, *Verbena* spp).

## 39. ORDER LAMIALES

### 39.1 FAMILY: Verbenaceae – The Verbena Family





## **39. ORDER LAMIALES**

### **39.2 FAMILY: Lamiaceae/Labiatae – The Mint Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs, shrubs, or trees

**LEAVES:** simple or compound; opposite or sometimes whorled

**FLOWERS:** zygomorphic to actinomorphic; hypogynous

**PERIANTH:** 5-merous

**COROLLA:** 5 lobed

**STAMENS:** 4 stamens or sometimes 2

**CARPELS:** 2 carpels

**OVARY:** 4-locular; 1 ovule in each locule

**FRUIT:** a drupe, or a schizocarp

## 39. ORDER LAMIALES

### 39.2 FAMILY: Lamiaceae/Labiatae – The Mint Family

CHARACTERISTIC FEATURE (IF ANY): Leaves simple, opposite with aromatic properties; sympetalous corolla with didynamous stamens and ovary with gynobasic style.

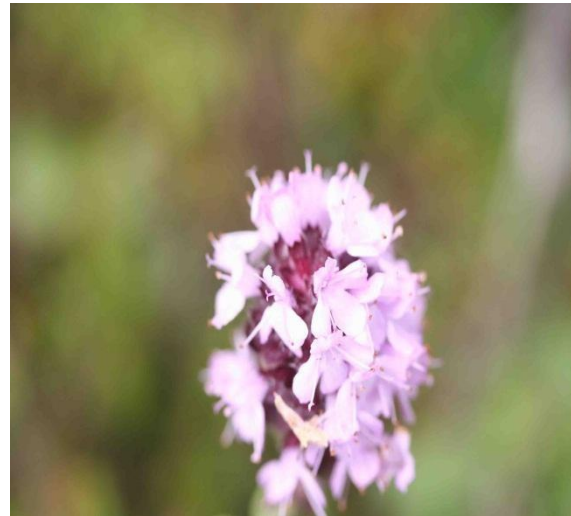
EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Aeolanthus*, *Ballota*, *Endostemon*, *Erythrochlamys*, *Lavandula*, *Leonotis*, *Leucas*, *Mentha*, *Nepeta*, *Ocimum*, *Origanum*, *Otostegia*, *Premna*, *Plectranthus*, *Salvia*, *Satureja*, *Solenostemon*, *Stachys*, *Teucrium*, *Thymus* and *Vitex*.

ECONOMIC IMPORTANCE: They are source of aromatic plants, condiments and spices: (Various species of *Lavandula* – lavender; *Mentha* – mint; *Origanum* – origano; *Satureja*; *Thymus* – thyme). They also serve as ornamental plants (*Salvia*, *Scutellaria* spp.).

## 39. ORDER LAMIALES

### 39.2 FAMILY: Lamiaceae/Labiatae – The Mint Family



## **39. ORDER LAMIALES**

### **39.2 FAMILY: Lamiaceae/Labiatae – The Mint Family**

#### **COMMON CHARACTERS**

**HABIT:** aquatic or marsh herbs

**LEAVES:** simple, all arising from root stock, erect or floating

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 3-merous

**COROLLA:** 3 petals

**STAMENS:** 3, 6 or 9

**CARPELS:** 3 to many

**OVARY:** 1-locular

**FRUIT:** achene or follicle

# MONOCOTS

## 40. ORDER ALISMATALES

### 40.1 FAMILY: Alismataceae – The Arrowhead or Water-plantain Family

#### CHARACTERISTIC FEATURE (IF ANY):

Aquatic or marshy plants; leaves arising from the root stocks, basally sheathing but open petioles; inflorescence peduncle simple or compound, ending in a terminal raceme.

#### EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Alisma*, *Burnatia*, *Limnophyton* and *Wisneria*.

## **40. ORDER ALISMATALES**

### **40.1 FAMILY: Alismataceae – The Arrowhead or Water-plantain Family**



## **40. ORDER ALISMATALES**

### **40.2 FAMILY: Araceae – The Arum Family**

#### **COMMON CHARACTERS**

- HABIT:** herbs or vines
- LEAVES:** simple to compound; alternate
- FLOWERS:** actinomorphic; hypogynous
- PERIANTH:** absent or 4 to 6 tepals
- COROLLA:** absent
- STAMENS:** 6 stamens
- CARPELS:** 1 to 3 carpels
- OVARY:** 1-locular; 1 to many ovules
- FRUIT:** a berry



## 40. ORDER ALISMATALES

### 40.2 FAMILY: Araceae – The Arum Family

CHARACTERISTIC FEATURE (IF ANY): Herbs with aerial stems or floating aquatics with tubers or rhizomes; flowers unisexual usually arranged in along cylindrical fleshy axis.

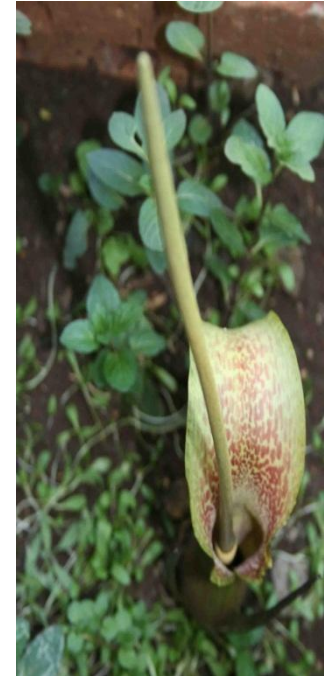
EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Amorphophalus*, *Arisaema*, *Colocasia*, *Culcasia*, *Philodendron*, *Pistia*, *Sauromatium*, *Stylochaeton* and *Zantedeschia*.

ECONOMIC IMPORTANCE: They are source of root tuber crops e.g. *Colocasia esculenta* – GODERE; fruits from *Monstera deliciosa*. They also serve as ornamental plants (*Monstera*, *Zantedeschia*).

# 40. ORDER ALISMATALES

## 40.2 FAMILY: Araceae – The Arum Family



# **41. ORDER LILIALES**

## **41.1 FAMILY: Liliaceae – The Lily Family**

### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate or verticillate

**FLOWERS:** actinomorphic rarely zygomorphic;  
hypogynous

**PERIANTH:** 6 tepals in 2 whorls of 3

**COROLLA:** see perianth

**STAMENS:** 6 stamens

**CARPELS:** 3 carpels

**OVARY:** 3-locular; several to many ovules in each locule

**FRUIT:** capsule

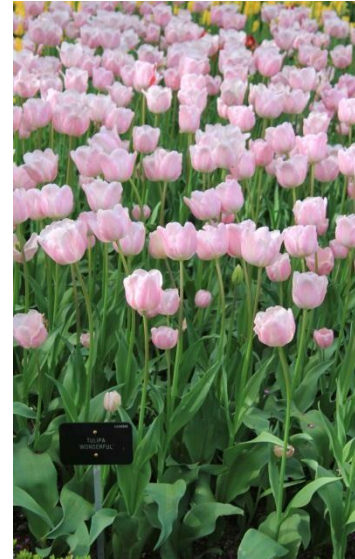
# 41. ORDER LILIALES

## 41.1 FAMILY: Liliaceae – The Lily Family

CHARACTERISTIC  
FEATURE (IF ANY): Erect  
herbs with bulbs; styles 3-  
lobed with 3 stigmatic crests.

EXAMPLES OF GENERA  
AND SPECIES IN  
ETHIOPIA: *Lilium* and *Tulipa*.

ECONOMIC IMPORTANCE:  
They also serve as ornamental  
plants (*Lilium* – lilies and  
*Tulipa* – tulips).



## **41. ORDER LILIALES**

### **41.2 FAMILY: COLCHICACEAE – The Colchicum Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; basally concentrated or scattered on the stem

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 6 tepals in 2 whorls of 3

**COROLLA:** see perianth

**STAMENS:** 6 stamens

**CARPELS:** 3 carpels

**OVARY:** 3-locular; several to many ovules in each locule

**FRUIT:** capsule

## 41. ORDER LILIALES

### 41.2 FAMILY: COLCHICACEAE – The Colchicum Family

CHARACTERISTIC FEATURE (IF ANY): Erect or sometimes twining herbs with a subterranean, starch rich corm which is sometimes stoloniferous.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Androcymbium*, *Gloriosa*, *Iphigenia*, *Littonia* and *Merendera*.

ECONOMIC IMPORTANCE: The family includes several species which are highly toxic and are used medicinally. *Colchicum* species are the original sources of colchicines used in the study of chromosomes. Species of *Colchicum* and *Gloriosa* are used as ornamentals.

# 41. ORDER LILIALES

## 41.2 FAMILY: COLCHICACEAE – The Colchicum Family



## **42. ORDER ASPARAGALES**

### **42.1 FAMILY: Asparagaceae – The Asparagus Family**

#### **COMMON CHARACTERS**

**HABIT:** erect shrubs, subshrubs, vines

**LEAVES:** reduced and scale-like, the assimilating function taken by modified green branches (cladodes), sometimes becoming leaf-like (phylloclades)

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 6 tepals

**COROLLA:** see above

**STAMENS:** 6 stamens

**CARPELS:** 3 carpels

**OVARY:** 3-locular; 2 to 12 ovules in each locule

**FRUIT:** berry



## 42. ORDER ASPARAGALES

### 42.1 FAMILY: Asparagaceae – The Asparagus Family

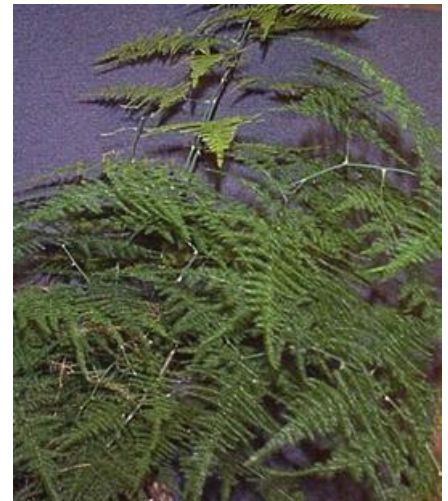
CHARACTERISTIC FEATURE (IF ANY): The leaves reduced and scale-like, the assimilating function taken by modified green branches (**cladodes**), sometimes becoming leaf-like (**phylloclades**). Plants with roots often swollen and fusiform.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:  
Asparagus.

ECONOMIC IMPORTANCE: a number of species of Asparagus are used as ornamental plants. e.g. *Asparagus aethiopicus*, *A. asparagoides*, etc.

## 42. ORDER ASPARAGALES

### 42.1 FAMILY: Asparagaceae – The Asparagus Family



## **42. ORDER ASPARAGALES**

### **42.2 FAMILY: Amaryllidaceae – The Amaryllis or Daffodil Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic to slightly zygomorphic;  
epigynous

**PERIANTH:** 6 tepals

**COROLLA:** see above

**STAMENS:** 6 stamens

**CARPELS:** 3 carpels

**OVARY:** 3-locular; several to many ovules in each  
locule

**FRUIT:** berry or capsular

## 42. ORDER ASPARAGALES

### 42.1 FAMILY: AMARYLLIDACEAE – The Amaryllis or Daffodil Family

CHARACTERISTIC FEATURE (IF ANY): Perennial herbs with bulbs. Flowers with tepals united to form a prominent tube and inferior ovary.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Ammocharis*, *Crinum*, *Pancratium* and *Scadoxus*.

ECONOMIC IMPORTANCE. They serve as ornamental plants (*Hippeastrum*, *Narcissus* (Daffodil) and *Zephyranthes*).

## 42. ORDER ASPARAGALES

### 42.1 FAMILY: AMARYLLIDACEAE – The Amaryllis or Daffodil Family



*Scadoxus multiflorus*

## **42. ORDER ASPARAGALES**

### **42.3 FAMILY: Iridaceae – The Iris Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic or zygomorphic; epigynous

**PERIANTH:** 6 tepals

**COROLLA:** see above

**STAMENS:** 3 stamens

**CARPELS:** 3 carpels

**OVARY:** 3-locular; few to many ovules in each locule

**FRUIT:** capsule or (rarely) berry

## 42. ORDER ASPARAGALES

### 42.3 FAMILY: Iridaceae – The Iris Family

CHARACTERISTIC FEATURE (IF ANY): Annual or perennial herbs with rhizomes, bulbs and corms. Flowers with showy tepals, inferior ovary and 3 stamens.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Aristea*, *Dierama*, *Gladiolus*, *Hesperantha*, *Lapeirousia*, *Moraea* and *Romulea*.

ECONOMIC IMPORTANCE: They serve as ornamental plants (species of *Crocus*, *Gladiolus*, *Watsonia* and *Iris*).

## 42. ORDER ASPARAGALES

### 42.3 FAMILY: IRIDACEAE – The Iris Family





## **42. ORDER ASPARAGALES**

### **42.5 FAMILY: Orchidaceae – The Orchid Family**

#### **COMMON CHARACTERS**

**HABIT:** Perennial, terrestrial, saprophytic, epiphytic and lithophytic herbs, rarely climbers

**LEAVES:** simple; alternate or often reduced to bract like scales

**FLOWERS:** zygomorphic; epigynous

**PERIANTH:** 6 tepals in two whorls

**COROLLA:** see above

**STAMENS:** 1 or sometimes 2 stamen(s)

**CARPELS:** 3 carpels

**OVARY:** 1-locular; very numerous ovules

**FRUIT:** capsule

## **42. ORDER ASPARAGALES**

### **42.5 FAMILY: ORCHIDACEAE – The Orchid Family**

**CHARACTERISTIC FEATURE (IF ANY):** Stems with one or more internodes at the base often swollen to form a pseudo-bulb. Flowers with inferior ovary; flowers often twisted through 180 and occasionally to 360°; the median lips in both the outer (sepal) and the inner (petal) whorl are different from the laterals; presence of column (the solid central structure formed by the union of style and stamens; pollen in tetrads, agglutinated into discrete masses called pollinia.

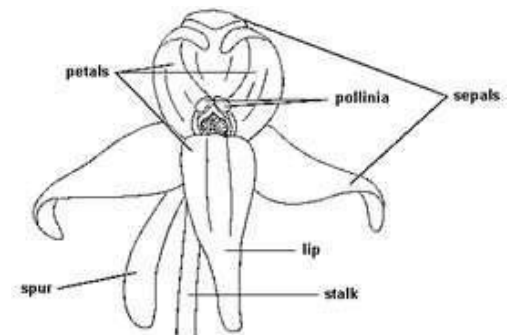
## 42. ORDER ASPARAGALES

### 42.5 FAMILY: Orchidaceae – The Orchid Family

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Aerangis*, , *Bulbophyllum*, *Disa*, *Eulophia*, *Habenaria*,  
*Holothrix*, *Nervillea*, *Polystachya*, *Satyrum*, etc.

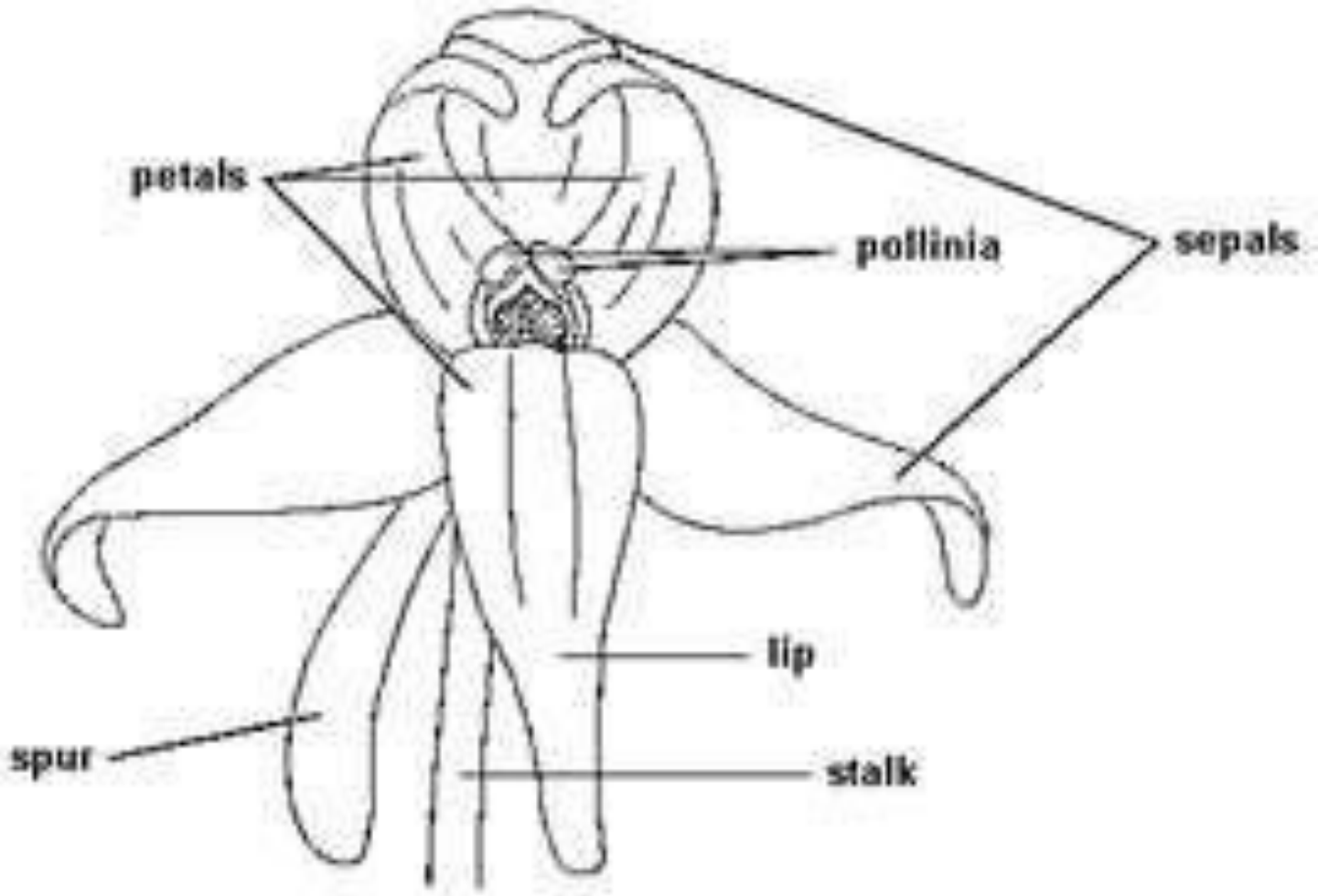
ECONOMIC IMPORTANCE: Some species of *Vanilla* are grown commercially to produce the flavouring vanillin; tubers of several species are used for food and as an aphrodisiac. They are extremely grown as ornamentals due to their beautiful flowers.



PARTS OF AN ORCHID FLOWER

## 42. ORDER ASPARAGALES

### 42.5 FAMILY: ORCHIDACEAE – The Orchid



PARTS OF AN ORCHID FLOWER

# 42. ORDER ASPARAGALES

## 42.5 FAMILY: ORCHIDACEAE – The Orchid



## **43. ORDER ARECALES**

### **43.1 FAMILY: Arecaceae or Palmae– The Palm Family**

#### **COMMON CHARACTERS**

**HABIT:** trees, shrubs, or lianas

**LEAVES:** simple to compound; alternate

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** absent

**COROLLA:** 3 petals

**STAMENS:** 3 to many

**CARPELS:** 1-3

**OVARY:** 1- or 3-locular; 1 ovule in each locule

**FRUIT:** drupe or nutlike

## 43. ORDER ARECALES

### 43.1 FAMILY: ARECACEAE or Palmae – The Palm Family

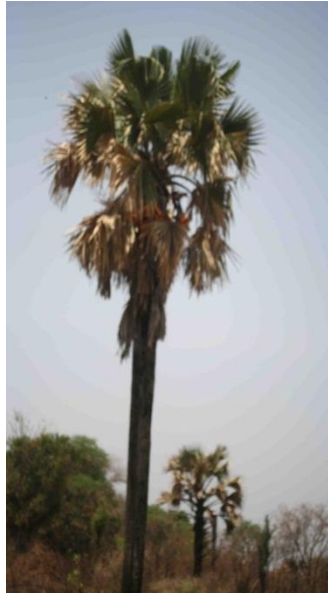
CHARACTERISTIC FEATURE (IF ANY): Leaves spirally arranged to form a dense crown, sometimes armed with spines or prickles.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Borassus*, *Hyphaene*, *Phoenix* and *Washingtonia*.

ECONOMIC IMPORTANCE: They are source of the edible date palms from (*Phoenix dactylifera*—TEMIR (Am.), and coconut from *Cocos nucifera*. They also serve as ornamental plants (species of *Borassus*, *Phoenix*, *Washingtonia* etc)

## 43. ORDER ARECALES

### 43.1 FAMILY: Arecaceae or Palmae – The Palm Family





## **44. ORDER COMMELINALES**

### **44.1 FAMILY: Commelinaceae – The Spiderwort Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic, zygomorphic; hypogynous

**PERIANTH:** 3-merous

**COROLLA:** 3 petals

**STAMENS:** 6 stamens

**CARPELS:** 3 carpels

**OVARY:** 2-3-locular; 1 to few ovules in each locule

**FRUIT:** capsule

## 44. ORDER COMMELINALES

### 44.1 FAMILY: Commelinaceae – The Spiderwort Family

#### CHARACTERISTIC FEATURE (IF ANY):

Annual or perennial succulent herbs with tuberous roots, rarely bulbs. Petals deliquescent (that melts away). Filaments bearded or glabrous.

#### EXAMPLES OF GENERA AND SPECIES IN

ETHIOPIA: *Aneilema*, *Anthericopsis*, *Commelina*, *cyanotis*, *Floscopa*, *Murdannia* and *Tradescantia*.

ECONOMIC IMPORTANCE: They serve as ornamental plants (species of *Commelina*, *Cyanotis*, *Tradescantia*, etc.

## 44. ORDER COMMELINALES

### 44.1 FAMILY: Commelinaceae – The Spiderwort Family



## **45. ORDER ZINGIBERALES**

### **45.1 FAMILY: Zingiberaceae – The Ginger Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** zygomorphic; epigynous

**PERIANTH:** 3-merous

**COROLLA:** 3 lobes

**STAMENS:** 1 stamen

**CARPELS:** 3 carpels

**OVARY:** 3- or sometimes 1-locular; numerous ovules

**FRUIT:** berry

## 45. ORDER ZINGIBERALES

### 45.1 FAMILY: Zingiberaceae – The Ginger Family

CHARACTERISTIC FEATURE (IF ANY): Perennial herbs with underground rhizomes or corms; zygomorphic flowers with single stamen.

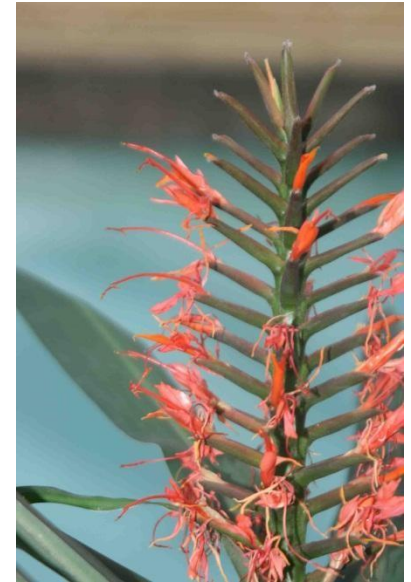
EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Aframomum*, *Curcuma*, *Siphonochilus* and *Zingiber*.

ECONOMIC IMPORTANCE: They are source of spices: Ginger (ZINGIBEL) from *Zingiber officinale*; Turmeric (ERD) from *Curcuma longa*; Cardamom (HEL) from *Elettaria cardamomum*; False cardamom (KORERIMA) from *Aframomum corrorima* (KORORIMMA); *Hedichium* for horticulture.

# 45. ORDER ZINGIBERALES

## 45.1 FAMILY: Zingiberaceae – The Ginger Family



## **46. ORDER POALES**

### **46.1 FAMILY: Typhaceae – The Cat-tail Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** hypogynous; unisexual

**PERIANTH:** absent or reduced to 3-6 bristles

**COROLLA:** see above

**STAMENS:** 2-5 in male flowers

**CARPELS:** 2 carpels

**OVARY:** 1-locular; 1 ovule

**FRUIT:** follicle

## 46. ORDER POALES

### 46.1 FAMILY: Typhaceae – The Cat-tail Family

CHARACTERISTIC FEATURE (IF ANY): Perennial monoecious herbs with creeping starchy rhizomes growing in wetlands. Inflorescence spike-like, very dense flowered with the upper male and the lower female flowers, and a gap in between the two flowers.

EXAMPLES OF GENUS AND SPECIES IN ETHIOPIA: *Typha* (*T. domingensis*, *T. elephantina* and *T. latifolia* (ARENQUA – Am.).

ECONOMIC IMPORTANCE: The starchy rhizomes is used as a source of food during famine; the female flowers are used to fill mattresses and cushions; the leaves are used to thatch and woven as mats, chairs, etc. The mature inflorescence is commonly used in dried flower arrangements.



## 46. ORDER POALES

### 46.1 FAMILY: Typhaceae – The Cat-tail Family



## **46. ORDER POALES**

### **46.2 FAMILY: Eriocaulaceae – The Pipewort Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic to zygomorphic; hypogynous;  
unisexual

**PERIANTH:** scarious or membranous in 2 series

**COROLLA:** 2 or 3

**STAMENS:** 2, 4 or 6 or reduced to 1

**CARPELS:** 2 carpels

**OVARY:** 2- or 3-locular; 1 ovule in each locule

**FRUIT:** capsule

## 46. ORDER POALES

### 46.2 FAMILY: Eriocaulaceae – The Pipewort Family

CHARACTERISTIC FEATURE  
(IF ANY):

Perennial or annual growing in seasonally wet places. Stems short and grass-like; inflorescence with a dense whitish or gray colored head

EXAMPLES OF GENUS:

*Eriocaulon*.



## **46. ORDER PAOALES**

### **46.3 FAMILY: Xyridaceae – The Yellow-eyed-grass Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** zygomorphic; hypogynous

**PERIANTH:** the perianth is clearly differentiated into sepals and petals.

**COROLLA:** 3 petals

**STAMENS:** 3

**CARPELS:** 3 carpels

**OVARY:** 1- locular; few to numerous ovules

**FRUIT:** capsule

## 46. ORDER PAOALES

### 46.3 FAMILY: *Xyridaceae* – The Yellow-eyed-grass Family

#### CHARACTERISTIC FEATURE

(IF ANY):

Perennial or annual herbs  
growing

in seasonally wet places

forming

grass-like tufts. Each of the  
flowers

subtended by a stiff bract;  
sepals keeled, boat-shaped;  
corolla yellow, rarely white.

EXAMPLES OF GENUS AND  
SPECIES IN ETHIOPIA: *Xyris*



## **46. ORDER PAOALES**

### **46.4 FAMILY: Juncaceae – The Rush Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 6 in two whorls

**COROLLA:** see above

**STAMENS:** 3 or 6

**CARPELS:** 3

**OVARY:** 1-3-locular; 1 to numerous ovules in each  
locule

**FRUIT:** a capsule

# 46. ORDER POALES

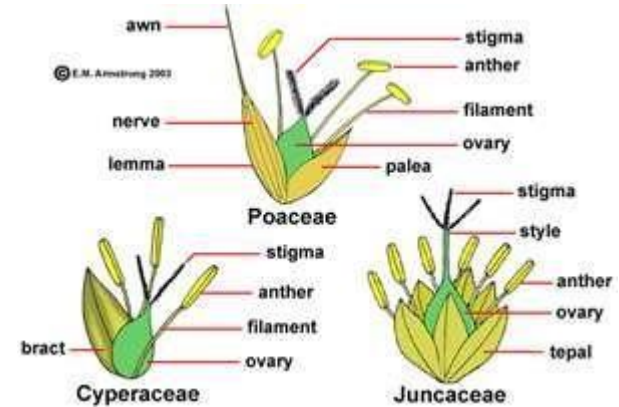
## 46.4 FAMILY: Juncaceae – The Rush Family

CHARACTERISTIC FEATURE (IF ANY):

Annual or perennial monoecious herbs; leaves mostly basal, grass-like or cylindrical; sheath open or closed, sometimes with long hairs at the mouth; flowers solitary or in small heads.

EXAMPLES OF GENERA AND SPECIES

IN ETHIOPIA: *Juncus* and *Luzula*.



## **46. ORDER POALES**

### **46.5 FAMILY: Cyperaceae – The Sedge Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs

**LEAVES:** simple; alternate

**FLOWERS:** actinomorphic; hypogynous

**PERIANTH:** 3-6 hairs, bristles or scales

**COROLLA:** absent

**STAMENS:** 1-3, rarely 4-6

**CARPELS:** 3 carpels

**OVARY:** 1-locular

**FRUIT:** achene or nut-let



## 46. ORDER POALES

### 46.5 FAMILY: Cyperaceae – The Sedge Family

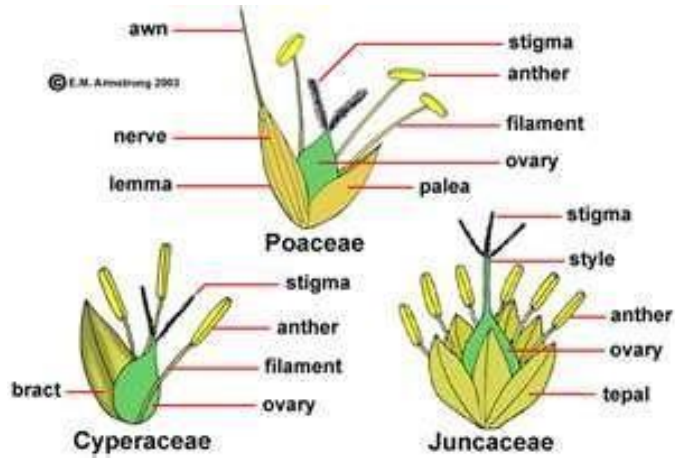
CHARACTERISTIC FEATURE (IF ANY): Grass-like herbs; stems usually solid, triangular, flattened or rounded, rarely 4-to multi-angular; leaves usually in three ranks and usually with a closed sheath; perianth of 3-6 hairs, bristles or scales.

EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA: *Ascolepis*, *Bulbostylis*, *Carex*, *Cyperus*, *Isolepis*, *Kyllinga*, etc.

ECONOMIC IMPORTANCE: They are used to make mats and other household utensils; tubers from *Cyperus bulbosus* (KUNTI) are used as a source of snacks in Tigray

# 46. ORDER POALES

## 46.5 FAMILY: Cyperaceae – The Sedge Family



## **46. ORDER POALES**

### **46.6 FAMILY: Poaceae or Gramineae – The Grass Family**

#### **COMMON CHARACTERS**

**HABIT:** herbs to woody bamboos

**LEAVES:** simple; alternate

**FLOWERS:** zygomorphic; hypogynous

**PERIANTH:** 2-3 hyaline or fleshy smallscales  
representing the perianth (lodicules)

**COROLLA:** absent

**STAMENS:** 1 to 3

**CARPELS:** 2 - 3

**OVARY:** 1-locular

**FRUIT:** caryopsis

## **46. ORDER POALES**

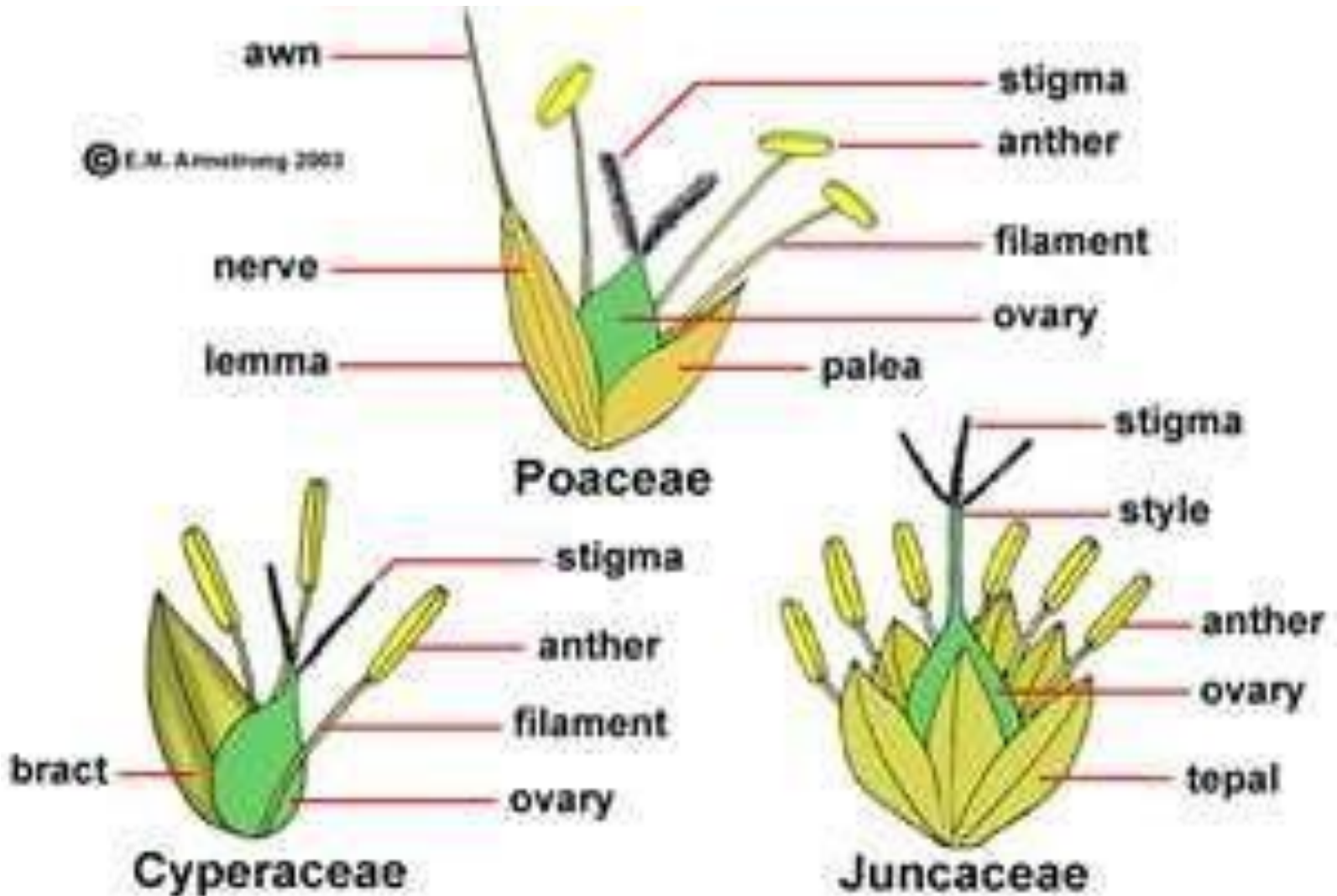
### **6. FAMILY: Poaceae or Gramineae – The Grass Family**

#### **CHARACTERISTIC FEATURE (IF ANY):**

- Grasses, herbaceous to woody bamboos;
- flowering stems jointed, cylindrical, hollow rarely solid;
- leaves usually arranged in two ranks and usually differentiated into sheath, ligule and blade;
- each floret composed of two bracts (palea and lemma); perianth of 3-6 hairs, bristles or scales.

# 46. ORDER POALES

## 46.6 FAMILY: Poaceae or Gramineae – The Grass Family



## 46. ORDER POALES

### 46.6 FAMILY: Poaceae or Gramineae – The Grass Family

#### EXAMPLES OF GENERA AND SPECIES IN ETHIOPIA:

*Agrostis*, *Andropogon*, *Arundinaria*, *Eragrostis*, *Hordeum*, *Oryza*, *Panicum*, *Pennisetum*, *Poa*, *Setaria*, *Sorghum*, *Zea*, etc.

ECONOMIC IMPORTANCE: They are the sources for the major crops of the world. of edible crops: Rice for *Oryza sativa*, Wheat from *Hordeum vulgare*, Teff from, *Eragrostis tef*, Maize from *Zea mays*, etc. They are also used in building houses and furnitures. e.g. *Arundinaria alpina* (KERKEHA) and *Oxytenanthera abyssinica* (SHIMEL). Some species are used to make thatched roofs and to make baskets and other household utensils from *Pennistium* spp. (SINDEDDO, GICHA)

## 46. ORDER POALES

### 46.6 FAMILY: Poaceae or Gramineae – The Grass Family



# 46. ORDER POALES

## 46.6 FAMILY: Poaceae or Gramineae – The Grass Family

