

VIII. A - Description of the selected pant taxa (*Loranthus*)

Habitat: - The plants are mostly terrestrial, epiphytic.

Habit: - Erect; Shrub.

Root: - Root is not present but root transformed in to Haustoria, which penetrate in to the host seed plants.

Stem: - Aerial; Cylindrical; Woody.

Phyllotaxy: - Opposite Decussate.

Leaf:- Exstipulate; Simple; Petiolate; Wavy; lamina shape- cordate, base- cordate, margine-entire, apex- acute; Surface leathery; Venation- pinnate reticulate; Size- length-13.5 cm, width- 9.5 cm; Odour nearer similar to tea leaves.

Inflorescence: - Raceme or Cymose- scropioid.

Flower: - Ebractate; without epicalyx; Pedicilate; Epigynous; Complete; Perfect; Bisexual; Actinomorphic; heteromerous; Colour-reddish.

Calyx: - Cup shaped; persistent-Acerescent; Green in colour.

Corolla: - Petals-5; Gamophyllous; Totally fused at base free at apex; Regular; Hypogynous; Petaloid; Colour-reddish yellow; Starp shaped towards the distal end & in form of sickle shaped tube toward the base; Corolla tube narrow at base & gradually widens toward the upper part.

Androecium: - Stamens-5; Free; Epigynous; Filament present; Exerted; Anther shape- linear; Basifixed; Monotheal.

Gynoecium: - Apocarpus; Ovary Inferior; Placentation basal; Ovule-1; Style- long, filamentous, marcescent; Stigma-capitate.

Fruit: - Fleshy; Indehiscent; Pseudo berry; Greenish yellow when mature & turning brown when dry; At the top of fruit is crowned by a persistent calyx; The fruit enclosed in a shiny, viscid film.

Systematic position of the selected taxa

Division- Spermatophyta

Sub-division- Angiospermae

Class- Dicotyledonae

Order- Loranthales

Family- Loranthaceae

Genus- *Loranthus*

Species- *L. parasiticus* (L) Merr.

VIII. B- Description of the selected pant taxa (*Macrosolen*)

Macrosolen cochinchinensis (Lour.) van Tieghem, Bull.soc.Bot.France (1894) Also known as dalu-dalu (Sumatera), kempladehan (Jawa Tengah). Shrub 0.5–1.3 m tall. Branches grayish, scattered lenticellate. Leaves are leathery, inflorescences solitary or sometimes axillary, bracts and bracteoles presents. Corolla is yellowish color, fruits are produced which is berry types yellowish green in color, fruiting time generally mid-June to August.

Morphological description

Habitat -The plant is mostly terrestrial.

Habit- Erect; many branched shrub.

Root-Root is not present but root transformed in to haustoria, which penetrate in to the host seed plant.

Stem- Aerial; cylindrical; woody, greyish in colour.

Phyllotaxy- opposite or scattered.

Leaves- Short-stemmed leaves, leaf blade narrowly to broadly elliptical or ovate to lanceolate 4-16 × 2.5-7 cm, cuneate to truncate at base, acuminate or acute but sometimes obtuse or shortly rounded at apex, lustrous above, dull below; lateral veins are present and number varies from 4 or 5 pairs.

Petiole - petioles 3-10 mm long.

Inflorescence - Inflorescences solitary, sub umbellate or spicate, racemes 2-7-flowered.

Flower-Short flower stalks, peduncle length varies 15-20 mm; bracts are broadly ovate, 1-2 mm; triangular bracteoles present, base is connate, 1-1.5 mm. Pedicel 4-6 mm. Mature bud 1-1.5 cm Ebractate; without epicalyx; Pedicilate; Epigynous; Complete; Perfect; Bisexual; Actinomorphic; heteromerous; Colour-yellow or yellowish green.

Calyx-Calyx ellipsoid, persistent, 2-2.5 mm, limb entire; ca. 0.5 mm. mature bud 1-1.5 cm. Green in colour.

Corolla -Corolla in mature bud 6-merous, mostly yellow or green or rarely pink or red below, dark colour at the neck and yellow or red above; tube in open flower 5-10(-14) mm long; lobes reflexed.

Androecium- Stamens-6, exerted, filaments flat, tubular,8-10mm long; anthers red or pink ,0.5-2.5mm long, acute, about half to one third as long as the free part of the filament.

Gynoecium- Ovary Inferior, unilocular; style tubular, bent at base; stigma globose, red or pink in color.

Fruit -Fruits globose; brownish green, glossy; Indehiscent,1.5-3.5 mm in diameter;stalk 2-3 mm long, Greenish yellow, at ripening it becomes reddish brown.

Systematic Position

Division: Spermatophyta

Subdivision: Angiospermae

Class: Dicotyledoneae

Order: Loranthales

Family: Loranthaceae

Genus: *Macrosolen*

Species: *M. cochinchinensis*. (Lour.) Tiegh.

VIII. C - Description of the selected pant taxa (*Viscum*)

There are approx 100 species of *Viscum* are found mainly in Africa and Madagascar and a Little bit reported from southern Asia. Some species are reported from Europe, eastern Australia, temperate Asia and Malesia. Nowadays The *Viscum* genus is placed under the family Viscaceae (Barlow,et al; 2002).

Habitat- The plants are mostly terrestrial.

Habit- It is an evergreen, epiphytic, perennial shrub that lives on a old aged tree or woody plant species.

Stem- Aerial; cylindrical; Woody, grayish in color. Root is generally absent. The function of root is anchor by haustoria. Haustoria are generally embedded in host xylem rather than they penetrate inside the tissue.

Leaves- Leaves are opposite foliage in nature, rarely (3 - 4 - 5) whorled, sessile, obovate-oblong,leathery and green. *Viscum album* has equifacial leaves. In general leaf length ranges between 2 - 8 cm, with a minimum width of 0.3 cm and a maximum of 4.3 cm. Foliage leaf internodes are 2 - 6 cm long. Leaves have parallel veins which is clearly visible and a diffused reticulate venation.

Inflorescence- Dichasium type of inflorescence are found to occur which is subtended by a pair of fused bracts (bracteal cup),

Flower- The inconspicuous flowers are small, sessile, and yellowish-green, dioecious plant. Flowers of both sexes produce nectar, female flower producing more nectar than males. Large

male flowers with tepals are arranged in two whorles. Female flowers have four tepals, the epigynous ovary is formed by two carpels, the style is short, the stigma is round and emerges directly from the ovary. An ovule is absent.

Fruit- The viscous fruit is a berry, often called a pseudo-berry, because it consists of carpel and stem borne tissue. Berries are 6 - 10 mm in diameter, globose or pyriform. The epicarp is white or occasionally yellow with 4 short dark lines form a ring and a central point caused by the stigma

Systematic Position

Division: Spermatophyta

Subdivision: Angiospermae

Class: Dicotyledoneae

Order: Santalales

Family: Santalaceae

Genus: *Viscum*

Species: *V.album*