

5. PRAINEA King

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selangking (Iban, Malay)

Rusea Go

In Hooker *f.*, Fl. Brit. Ind. 5 (1888) 546; Beccari, For. Born. (1902) 635; Ridley, FMP 3 (1924) 358; Jarrett, J. Arn. Arb. 40 (1959) 30; Burgess, TBS (1966) 399; Kochummen, TFM 3 (1978) 165; Anderson, CLTS (1980) 262; Primack, Forester's Guide to the Moraceae of Sarawak (1983) 124; Whitmore, Tantra & Sutisna, CLK 2, 1 (1990) 260; Rohwer *in* Kubitzki *et al.* (eds.), Fam. & Gen. Vasc. Pl. 2 (1993) 448; Coode *et al.* (eds.), CLBD (1996) 220; PROSEA 5, 3 (1998) 469.

Trees or woody climbers (not in Sabah and Sarawak), *unarmed, monoecious or dioecious*. **Bark** reddish brown; slash with milky white latex. **Stipules** paired, *lateral or intrapetiolar, non-amplexicaul*. **Leaves** simple, *spirally arranged or distichous*, penninerved; lateral veins distinctly looping near the leaf margin. **Inflorescences** *unisexual, capitate*, peduncled, solitary or paired in the leaf axils; flowers among numerous peltate, clavate, or spatulate interfloral bracts; perianth free, enclosing a single stamen or ovary; *involucral bracts absent*. **Male inflorescences** with numerous flowers; male flowers: perianth tubular, bilobed or perforated above, stamens shortly exerted. **Female inflorescences** with fewer flowers; female flowers: perianth tubular, clavate, fleshy above, the mouth contracted, very shortly 4-lobed or merely perforated, ovary unilocular, style apical, bifid, the arms exerted, ovules subapical. **Syncarps** subglobose to ellipsoid; *perianth strongly enlarged, projecting from the syncarp surface*, fleshy, globose to ellipsoid. **Fruits** drupaceous, large, attached laterally near the base of the syncarp, interfloral bracts persistent. **Seeds** without endosperm; embryo straight, cotyledons equal fleshy; radicle and plumule minute, apical.

Distribution. Four species, distributed in Sumatra, Peninsular Malaysia, Borneo, Maluku, and Papua New Guinea. In Sabah and Sarawak two species are found, of which one is endemic to Borneo (*Prainea frutescens*).

Ecology. Mostly found in lowland and hill forests, below 1000 m altitude.

Uses. Source of medium hardwood for local use.

Key to *Prainea* species

- Leaves 5–16 × 3–7 cm, thin-coriaceous to chartaceous. Syncarp with a peduncle 1.3–1.6 cm long.....**1. P. frutescens**
 Leaves 10–35 × 4–15 cm, thick-coriaceous. Syncarp with a peduncle 7.5–11.5 cm long.....**2. P. limpato**

1. *Prainea frutescens* Becc.(Latin, *frutescens* = shrubby; the habit)

For. Born. (1902) 635; Corner *l.c.* (1962) 242; Anderson *l.c.* 262; Primack *l.c.* 125; Whitmore, Tantra & Sutisna *l.c.* 261. **Type:** *Beccari PB 667*, Borneo, Sarawak (holotype FI; isotypes K, P). **Synonym:** *Artocarpus frutescens* (Becc.) Renner, Engl. Bot. Jahrb. 39 (1907) 367.

Tree up to 30 m tall, 40 cm diameter; with short, rounded buttresses or without buttresses. **Bark** grey, becoming brownish or reddish near the buttresses, smooth; inner bark reddish. **Sapwood** yellowish. Young **twigs** sparsely hairy or puberulent, older ones glabrescent to glabrous. **Leaves** *thin-coriaceous to chartaceous*, glabrous on both surfaces; obovate, elliptic to oblong, 5–16 × 3–7 cm, base cuneate, rarely asymmetric, margin entire, plane, apex abruptly contracted into narrow acumen *c.* 2 cm long; midrib prominent below; lateral veins obscure, 6–10 pairs, looping near the leaf margin; intercostal venation reticulate, obscure on both surfaces; petiole slender, up to 1.2 cm long. **Inflorescences** solitary. **Male inflorescences** subglobose, 0.4–0.6 cm diameter; peduncle 0.5–1.2 cm long. **Male flowers:** perianth 0.8–1 mm long, minutely pubescent; stamens slender, *c.* 1.2 mm long, filament cylindrical, anthers oblong, up to 0.2 mm long; bracts with minute stalk. **Female inflorescences** globose, up to 1 cm diameter, each bearing at least 20–30 flowers and numerous bracts. **Syncarps** globose, up to 1.5 cm diameter, compactly covered by 20–30 developing female flowers and numerous bracts; fruiting perianth ovoid, *c.* 6 mm diameter, projecting up to 7 mm long, apices obtuse, mouth shortly bilobed; bracts connate in groups; *peduncle 1.3–1.6 cm long*. **Fruits** ripening red.

Vernacular names. Sarawak—*selangking* (Malay), *selangking batu* (Iban).

Distribution. Endemic to Borneo. In Sabah uncommon; in Sarawak only known from the west and northern parts. Not known in Brunei.

Ecology. In primary lowland mixed dipterocarp forest, up to 300 m altitude, including heath forest (*kerangas*) on yellow sandy or brownish soils. Flowering either in February–March or from October–November; fruiting in June–August or November–December, February and April.

2. *Prainea limpato* (Miq.) Beumee ex Heyne

Fig. 15.

(Sumatran plant name—*limpatu*)

Nutt. Pl. Ned. Ind., ed. 2, 1 (1927) 579; Jarrett *l.c.* (1959) 34; Burgess *l.c.* 399; Kochummen *l.c.* 673; Anderson *l.c.* 262; Primack *l.c.* 126; Whitmore, Tantra, Sutisna *l.c.* 261; Coode *et al.* (eds.) *l.c.* 220. **Basionym:** *Artocarpus limpato* Miq. Fl. Ind. Bat., Suppl. (1861) 421. **Type:** *Diepenhorst HB 2500*, Sumatra, Priaman (holotype U; isotype L). **Synonyms:** *Urostigma diepenhorstii* Miq. *l.c.* (1861) 439; *Ficus diepenhorstii* (Miq.) King, Ann. Roy. Bot. Gard. Calc. 1, 2 (1888) 181; *P. cuspidata* Becc. *l.c.* 636; *P. multinervia* Merr., Philip. Journ. Sci 29 (1926) 364.

Deciduous tree, up to 30 m tall, 40 cm diameter; with or without buttresses. **Bark** greyish to reddish brown, smooth to somewhat scaly and sometimes flaky; inner bark greyish white or pale grey. **Sapwood** pale greenish. **Twigs** rounded or flat, 0.2–0.7 cm thick, appressed puberulent. **Leaves** *thick-coriaceous*; oblong to obovate or elliptic, 10–35 ×

4–15 cm, base asymmetric, cuneate to rounded, margin revolute, apex abruptly contracted into narrow acumen up to 2 cm long; lateral veins 12–14 pairs, prominently raised beneath, looping near the leaf margin; intercostal venation reticulate, faint to distinct above; petiole up to 3 cm long. **Inflorescences** solitary or paired. **Male inflorescences** globose, up to 1.5 cm diameter; peduncle 3–4 cm long, glabrous or short-hairy. **Male flowers:** perianth tubular, perforated, minutely pubescent; stamens *c.* 1.8 mm long, filament cylindrical, anthers oblong, *c.* 0.5 mm long; bracts with slender stalk, ciliate. **Female inflorescences** globose; interfloral bracts abundant, spatulate or with peltate upper parts, densely or sparsely hairy. **Syncarps** up to 5.5 cm diameter, very irregularly shaped, loosely covered by numerous bracts, yellow-green, drying brown; fruiting perianth 8–20 per head, projecting to 15–20 mm, ellipsoid, *c.* 10 mm diameter, obtuse or broadly attenuate; *peduncle* 7.5–11.5 cm long, puberulent.

Vernacular names. Sabah—*kasusur aboi*, *kesusu* (Dusun), *kayu susu* (Malay, Sandakan), *tampang* (Malay), *usu* (Dusun, Banggi). Sarawak—*empatak* (Iban), *karen* or *karon* (Bidayuh), *tampang* (Malay).

Distribution. Sumatra, Peninsular Malaysia and Borneo. In Sabah scattered, uncommon; in Sarawak mostly found in Kuching district, uncommon. Also in Brunei and Kalimantan.

Ecology. In lowland and hill mixed dipterocarp forests on loamy, sandstone-derived or sandy soils, on limestone ridges and riverbanks, up to 700 m altitude. Flowering May–August; fruiting in August–January.

Use. Source of light hardwood known as *beruni*.

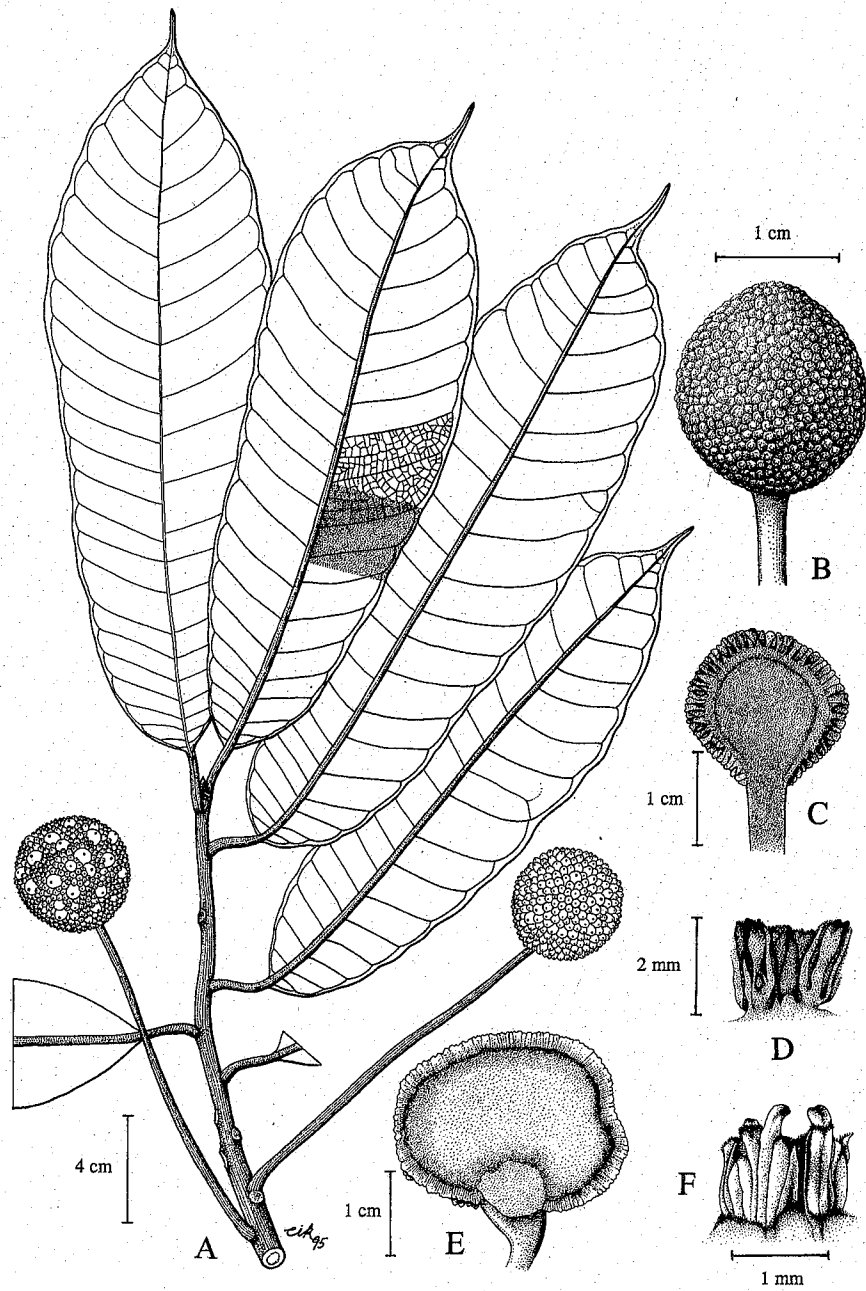


Fig. 15. *Prainea limpato*. A, leafy twig with inflorescence heads; B, female inflorescence head; C, longitudinal section of female inflorescence head; D, female flowers; E, male inflorescence head; F, male flowers. (A–D from S. 32656, E–F from SAN 84666.)