

PREMNA CORDIFOLIA (VERBENACEAE) - A VARIOUSLY
MISAPPLIED NAME

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A B S T R A C T

Premna cordifolia Roxb., does not occur in India. It is found that either this species was misunderstood or the name *P. cordifolia* misapplied to *P. corymbosa* Rottler in old literature, or to *P. rubens* (C.B. Clarke) Ridley in later literature. The species involved are keyed out and their nomenclature is set right. *P. rubens* is added to the Indian Verbenaceae and the name lectotypified.

Roxburgh (1832) described *Premna cordifolia* based on material from a plant grown in the Calcutta Botanic Garden and stated that it was from the Prince of Wales Island. There is an illustration of this species in the Roxburgh Flora Indica drawings, t. 1462 (Sealy, 1957). This as well as some of the specimens housed at CAL showed that *P. cordifolia* is a distinct species which does not occur in India.

Graham (1839) who reported *P. cordifolia* from Bombay was followed by Dalzell and Gibson (1861). Clarke (1885) described *Premna coriacea* as a new species for *P. cordifolia* sensu Graham (*l.c.*), and Dalzell & Gibson (*l.c.*), non Roxb. 1832.

Premna cordifolia sensu Voigt (1845) is only *P. coriacea* as he cited Graham as well as Khandala.

Wight's (1849) *P. cordifolia*, as is evident from his illustration (*Icon. t. 1483*) and was pointed out by Clarke (1885), is certainly *P. corymbosa* Rottler; so is *P. cordifolia* sensu Beddome (1872). Drury's (1866) *P. cordifolia*, on the contrary, is a mixture of *P. corymbosa* and *P. coriacea* as he cited Wight's *Icon. t. 1483* as well as Khandala.

Brandis (1906) reported *P. cordifolia* from Assam

and the Naga Hills and he was followed by Kanjilal *et al.* (1939). A study of material from Assam showed that the name *P. cordifolia* was misapplied to *P. rubens* (C.B. Clarke) Ridley by these authors.

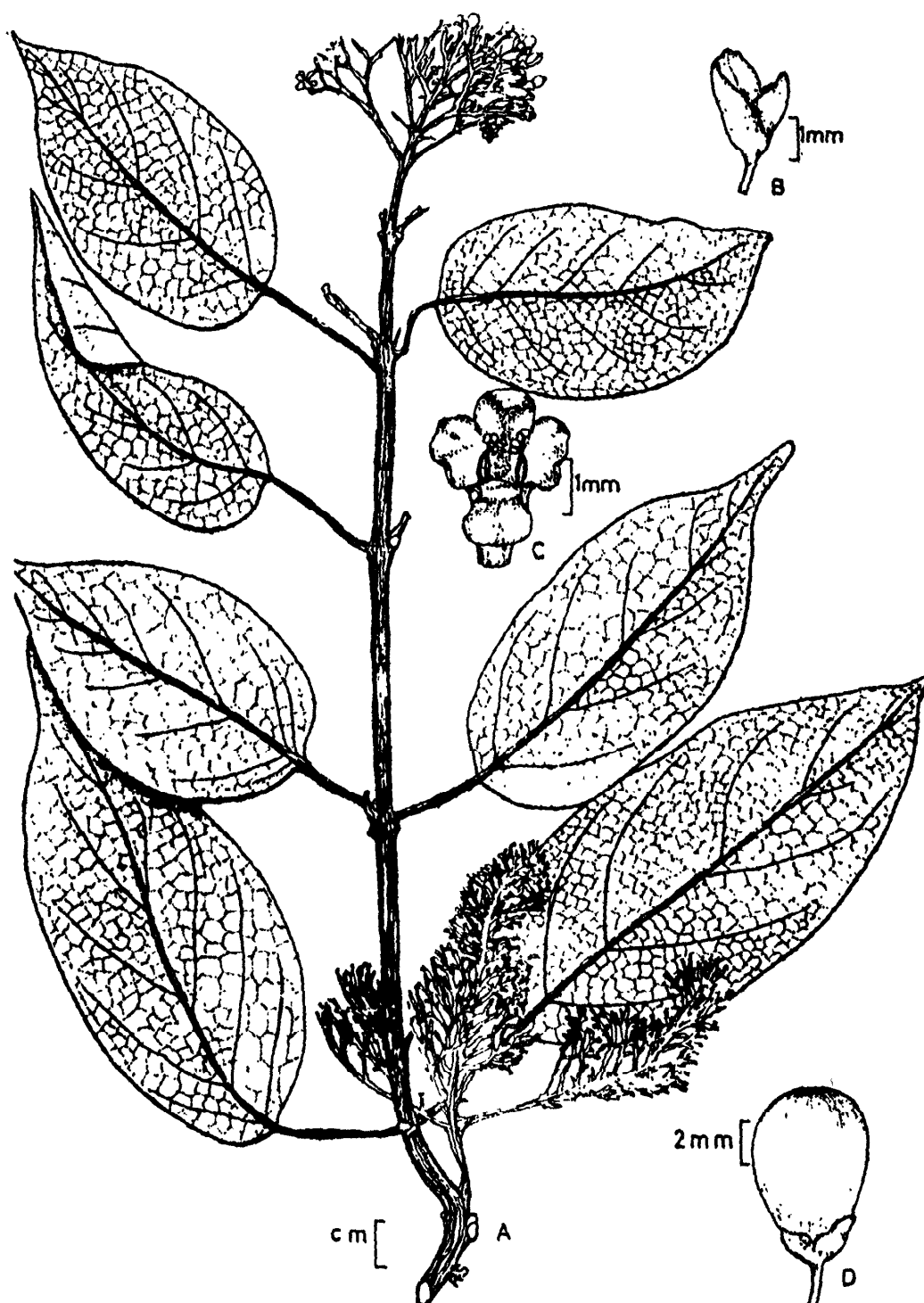
Moldenke's (1980) reported occurrence of *P. cordifolia* Roxb., in Assam, Gujarat, Maharashtra (and Union Territory?) appears to have been based on the misapplication of the name *P. cordifolia* in Indian literature.

The species involved in this taxonomic confusion are keyed out, their nomenclature is set right and data on distribution provided. As *P. rubens* is an addition to the Indian Verbenaceae, a description is appended.

KEY TO THE SPECIES

- 1a. Leaves ovate-oblong to lanceolate; inflorescence a thyrse; flowers crimson or pale red ... 1. *P. rubens*
- b. Leaves cordate, cordate-ovate or suborbicular; inflorescence a corymb or corymbose panicle; flowers yellow or cream-coloured ... 2

- 2a. Scandent shrub, epiphytic; leaves coriaceous; corymbose panicles more than 12 cm across; drupes obovoid ... 2. *P. coriacea*
- b. Straggling or erect shrub or small tree, not epiphytic; leaves not coriaceous; corymbs less than 12 cm across; drupes globose or subglobose ... 3
- 3a. Erect shrub or small tree; leaves bullate, glabrous; corymbs terminal, divaricate, up to 7 cm across; drupes globose ... 3. *P. cordifolia*
- b. Straggling shrub; leaves smooth, villous; corymbs terminal and axillary, condensed, up to 4 cm across; drupes subglobose ... 4. *P. corymbosa*
1. *Premna rubens* (C.B. Clarke) Ridley, Fl. Malay Penins. 2: 618. 1923. Type : as for the basionym. *P. flavescens* Buch. Ham. ex C.B. Clarke var. *rubens* C.B. Clarke in Hook. f., Fl. Brit. India 4: 578. 1885, excl. Griffith No. 6020; H.J. Lam & Bakh. in Bull. Jard. Bot. Buitenzorg Ser. 3, 3: 41. 1921; Mold., Sixth Summ. Verbenac. etc. 568. 1980. Type : Clarke (l.c.) cited *Premna* No. 32, *Herb. Ind. Or. H. f. & T.* Malacca; Griffith (Kew Distrib. No. 6020) and quoted Jaya as well. Herbarium of the East Indian Company, No. 6020., *Premna* (32 H.f. & T.), BURMA and MALAY PENINSULA, *Herb. Griffith* is *P. flavescens* var. *glabrior* C.B. Clarke (K, photo!). However, the one from Malacca collected by Griffith s. n. (K, photo!) belonging to HERB. R. WIGHT PROP., and cited by Clarke is var. *rubens* C.B. Clarke. This is selected as lectotype. *P. cordifolia* auct. non Roxb. 1832 : Brandis, Indian Trees 510. 1906; Kanj. et al., Fl. Assam 3: 471. 1939 (Fig. 1):
- Scandent shrub; branches and branchlets subterete or obtusely 4-angular, glabrous, lenticellate; bark brownish with prominent cup-shaped leaf-scars; nodes annulate; internodes 1-7.5 cm long. Leaves ovate-oblong to lanceolate, obtuse or subcordate at base, entire at margins, shortly acuminate at apex, 9-17 × 5-7 cm, chartaceous or subcoriaceous, dark red above, slightly paler beneath, glabrous on both surfaces; lateral nerves 5-7 pairs, ascending, arcuate at margins; petioles slender, canaliculate, 2-5 cm long, sparsely pubescent. Thyrses terminal and axillary, composed of 6-16 decussate-opposite branched cymes, ca 8 × 6 cm; peduncles slender, obtusely 4-angular, 1-2 cm long, pubescent; bracts linear-lanceolate, ca 6 × 1 mm, pubescent. Flowers numerous; pedicels 1-2 mm long. Calyx campanulate, 2-lipped, 4-toothed, ca 3.5 × 2 mm; upper lip minutely 2-toothed; lower lip subentire, glabrous. Corolla infundibular, 2-lipped, 4-lobed, ca 7 × 5 mm; upper lip entire, suborbicular, concave, ca 3 × 3.5 mm; lower lip 3-lobed; midlobe obovate, obtuse, ca 2.5 × 2 mm; lateral lobes oblong or ovate, ca 2 × 1.2 mm. Stamens 4, didynamous; filaments slender, 2.5-3 mm long, included, glabrous. Ovary obovoid, truncate at apex, ca 3 × 2 mm, glabrous; style slender, equalling filaments; stigma 2-lobed; lobes unequal, acute. Drupes obovoid, truncate at apex, ca 8 × 6 mm; fruiting-calyx ca 3 × 4 mm, membranous, glabrous.
- Fl. & Fr. : May Dec.
- Distrib. : India : Assam and Meghalaya Myanmar, Indonesia, Malaysia and Vietnam (Moldenke, 1980).
- Notes : *P. rubens* is represented in Indian herbaria by very few collections only, and was collected last in 1957. It seems to be confined to a few areas in the States of Assam and Meghalaya.
- Specimens examined : ASSAM : Sibsagar, Garampani, 320 m, 17.11.1912, U. Kanjilal 1934 (ASSAM); Sibsagar, Nahorjan, 270 m, 24.12.1912,



Figs. 1. A-C : *Premna rubens* (C.B. Clarke) Ridley : A. flowering twig; B. calyx; C. fruit. (U.N. Kanjilal 1934, ASSAM).

U. Kanjilal 1968 (ASSAM); Nowgong Dist., Dephu forest, 24.8.1939, *R. N. De* 1868 (CAL). MEGHALAYA: Garampani and Barapathar, Nardwar Reserve, 18.5.1957, *G. Panigrahi* 9449 (CAL, ASSAM).

2. *Premna coriacea* C.B. Clarke in Hook. f., Fl. Brit. India 1: 573. 1885, excl. vars.; T. Cooke, Fl. Bombay 426. 1906; Gamble, Fl. Madras 1095. 1924; Haines, Bot. Bihar Orissa 714. 1925; Kanj. *et al.*, Fl. Assam 3: 472. 1939; Shah, Fl. Gujarat 1: 563. 1978; Mold., Sixth Summ. Verbenac. etc. 568. 1980; B. Sharma *et al.*, Fl. Karnataka 217. 1984; R. Rao, Fl. Goa 2: 339. 1986; M.K.V. Rao in J. Econ. Tax. Bot. 8: 139. 1986; Srinivasan in A.N. Henry *et al.*, Fl. Tamil Nadu 2: 167. 1987. Type : Clarke (*l.c.*) observed that *P. coriacea* is common to W. Deccan Peninsula, in the Ghats, from Bombay to Cochin; Wight, Graham, Hohenacker, & c. The type sheet in K (photo!) has a Hohenacker collection with 2 specimens with 3 leaves and an inflorescence each in the upper half with a printed label in the middle, *Pl. Ind. Or. (Terr. Canara et confin.)* Ed. R.F. Hohenacker 732. a. There is a better specimen with many leaves in the lower half with the label, Concan Mr. Law. This has also been annotated by Clarke as *Premna coriacea* C.B. Clarke. However, in the absence of a reference to either Law or Concan in the protologue, the better specimen on the upper right hand corner in Hohenacker 732. a is chosen as lectotype. This might have been collected by F. Metz for Hohenacker (*vide* Burkill, 1965: 53). (Fig. 2).

P. cordifolia auct. non Roxb. 1832 : J. Graham, Cat. Pl. Bombay 155. 1839; Voigt, Hort. Suburb. Calcutt. 468. 1845; Dalz. & A. Gibson, Bombay Fl. 199. 1861; Drury, Handb. Indian Fl. 2 : 496. 1866, p.p.

P. scandens auct. non Roxb. 1832: J. Graham, Cat. Pl. Bombay 115. 1839; Dalz. & A. Gibson, Bombay Fl. 199. 1861; Woodrow in J. Bombay Nat. Hist. Soc. 12: 359. 1899; Haridasan & R.R. Rao, Forest Fl. Meghalaya 2: 686. 1987, p.p.

Gumira coriacea (C.B. Clarke) Kuntze, Revis. Gen. Pl. 2: 507. 1891. Type : as for the basionym.

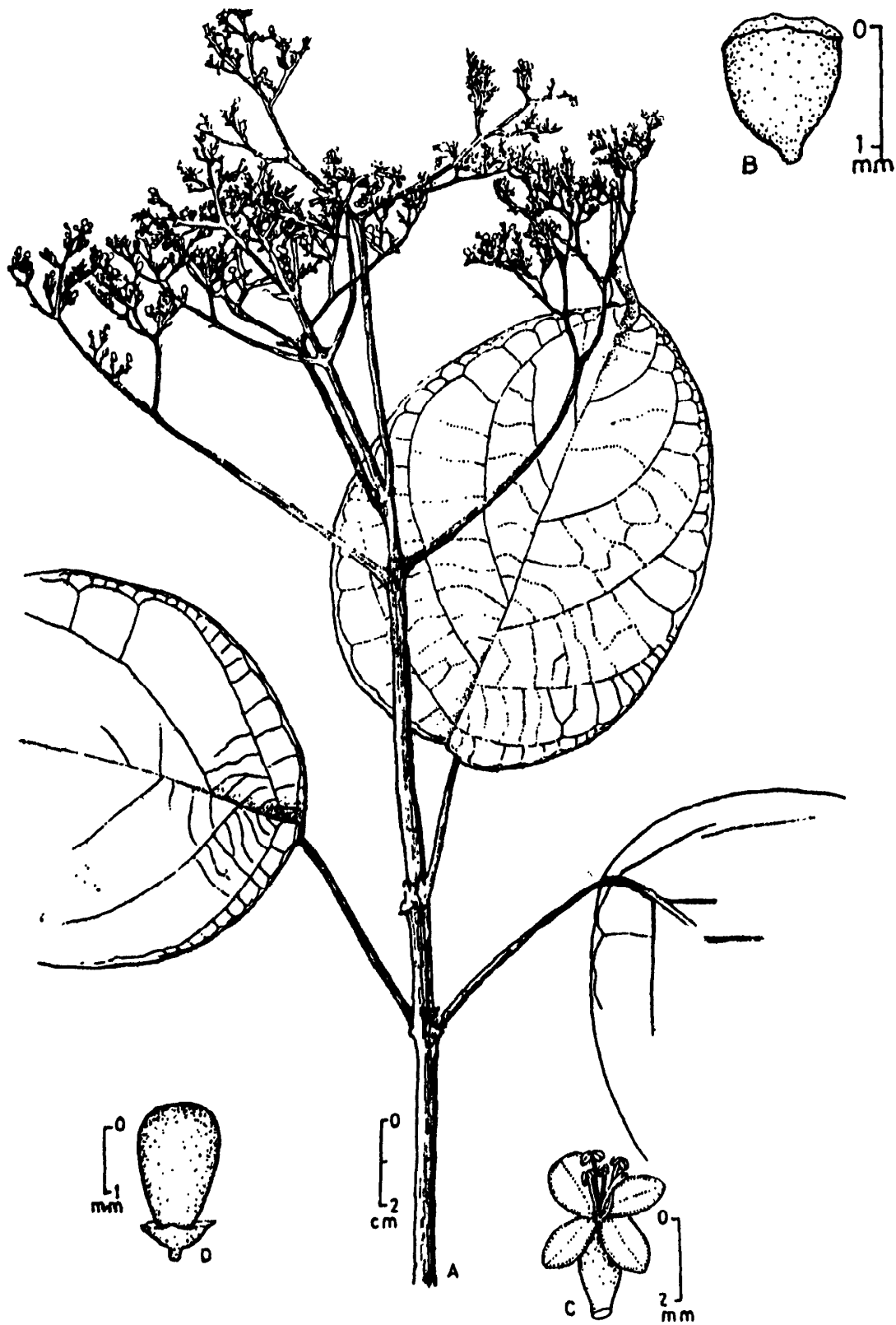
Distrib. : India : Andaman Islands, Goa, Karnataka, Kerala, Maharashtra, Meghalaya, Orissa and Tamil Nadu. Inclusion of the Andamans is based on Rao's (1986) enumeration. Its reported occurrence in Gujarat (Shah, 1978) was based on the earlier listing of Thaker from Kutch, who according to Shah (*l.c.*) had seen neither the leaves nor the flowers.

3. *Premna cordifolia* Roxb., Fl. Ind. 3: 78. 1832; Walp., Repert. Bot. Syst. 4: 94. 1845; Schauer in A. DC., Prodr. 11 : 632. 1847, excl. ref. to Pondicherry; C.B. Clarke in Hook. f., Fl. Brit. India 4: 572. 1885; Briq. in Engl. & Prantl, Nat. Pflanzenfam. 4(3a): 170. 1895; King & Gamble, Mat. Fl. Malay Penins. 4: 810. 1909; H. J. Lam & Bakh. in Bull. Jard. Bot. Buitenzorg Ser. 3, 3: 36. 1921; Ridley, Fl. Malay Penins. 2: 621. 1923; Dop in Lecomte, Fl. Gen. Indo-Chine 4: 816. 1935; Fletcher in Kew Misc. Inform. 1938: 418. 1938; Mold., Sixth Summ. Verbenac. etc. 568, 1980, excl. ref. to India. - Type : Roxburgh (*l.c.*) did not cite any specimen. Hence illustration 1462 in Roxb. Fl. Ind. Drawings (CAL, K!) is selected as lectotype. (Fig. 3).

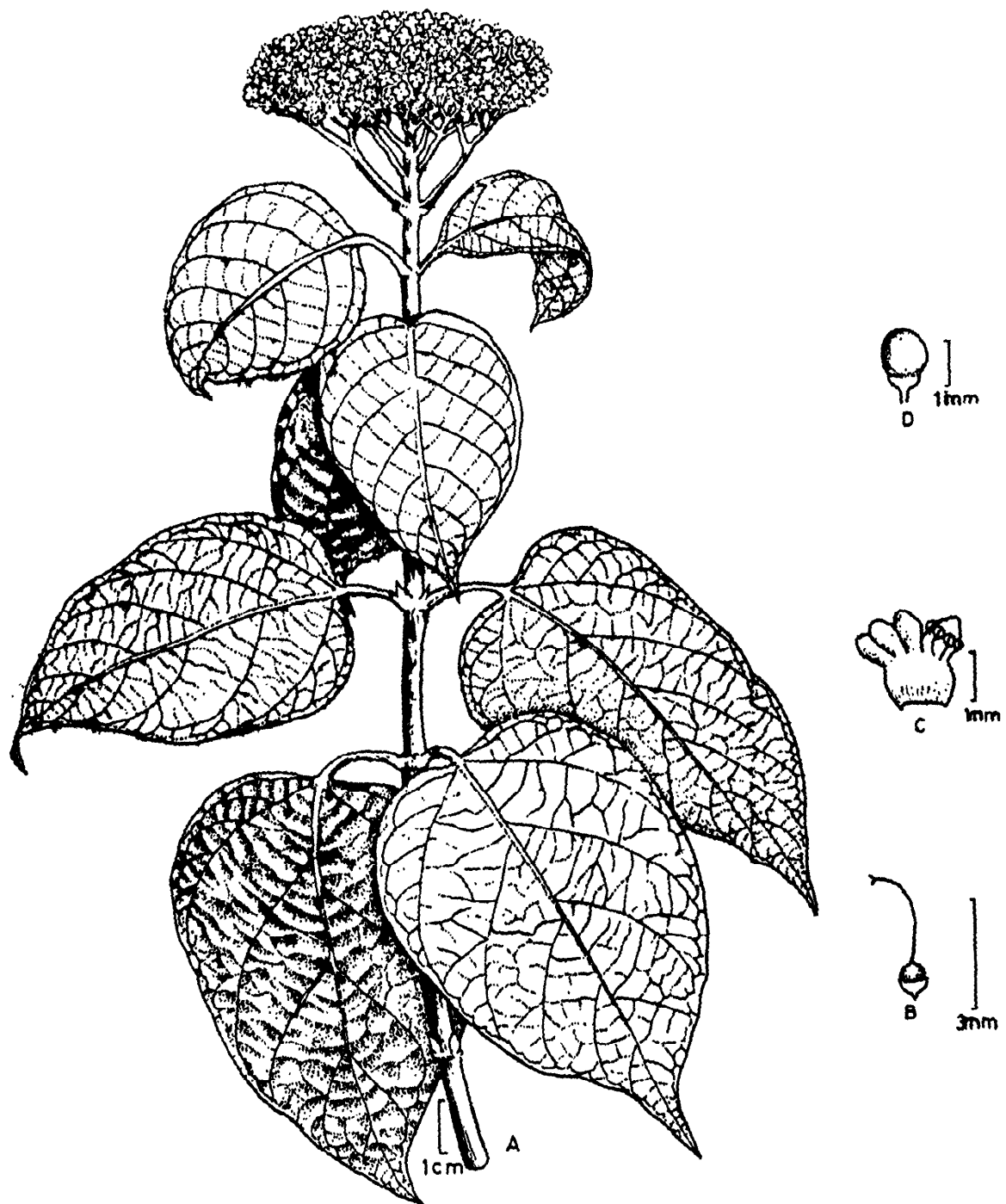
Distrib. : Malaysia, Thailand and Vietnam (Moldenke, 1980).

4. *Premna corymbosa* Rottler in Ges. Naturf. Freunde Berlin Neue Schriften 4: 187. 1803; Willd. in Ges. Naturf. Freunde Berlin Neue Schriften 4: 188. 1803, in anmerkungen; C.B. Clarke in Hook. f., Fl. Brit. India 4: 573. 1885, excl. syn. *Cornutia corymbosa* Burm. f.; Trimen, Handb. Fl. Ceylon 3: 357. 1895; Gamble, Fl. Madras 1905. 1924; Matthew & Rani in Matthew, Fl. Tamilnadu Carnatic 3: 1223. 1983, excl. basionym; Srinivasan in A.N. Henry *et al.*, Fl. Tamil Nadu 2: 165. 1987, excl. basionym; P. Daniel in Taxon 40: 609. 1991. - Type : Tempakkam, 2 Oct. 1799, Rottler s.n. (B-W, microfiche, photo!). (Fig. 4).

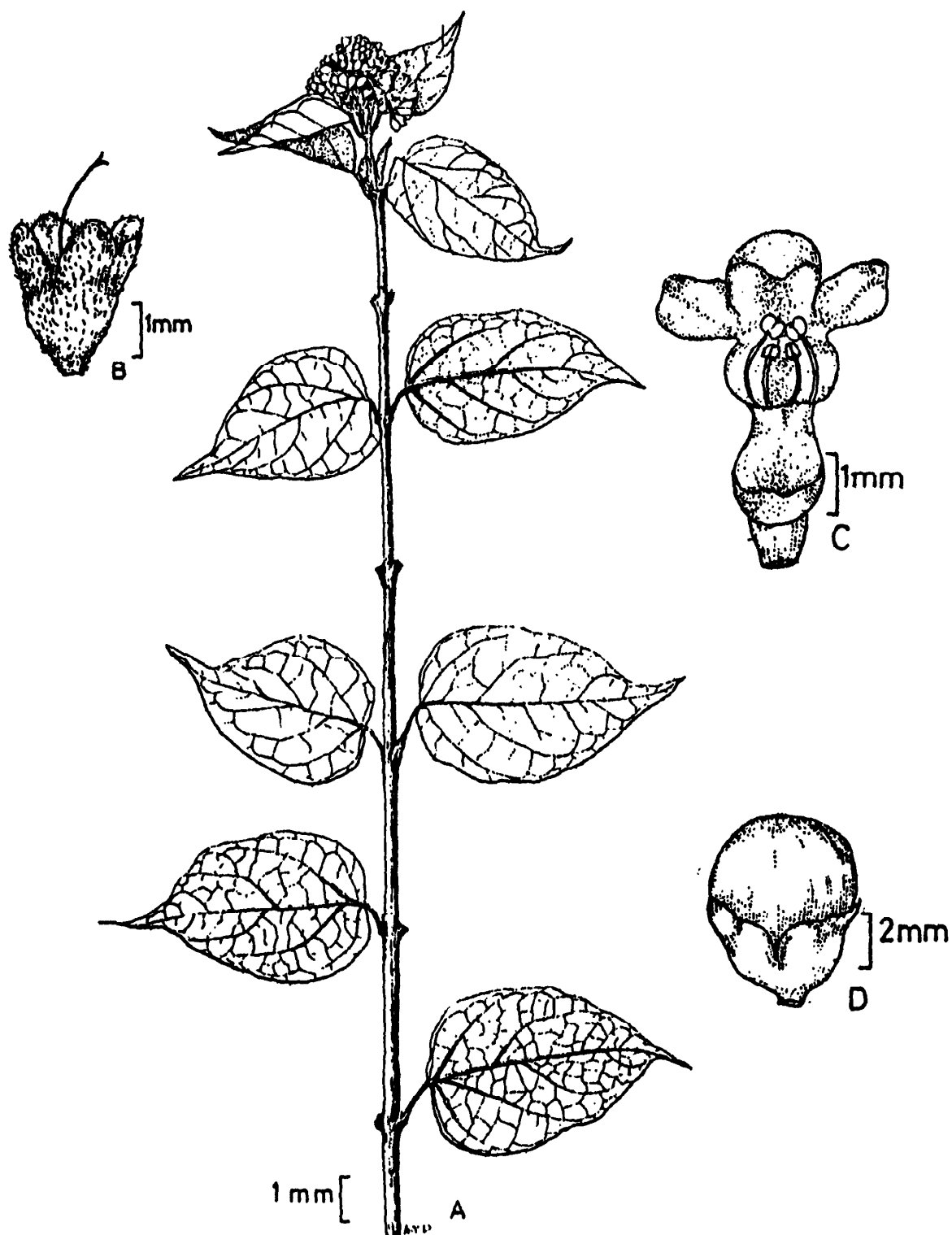
P. cordifolia auct. non Roxb. 1832 : Schauer in A. DC., Prodr. 11: 632. 1847, p.p.; Wight, Icon.



Figs. 2. A-D : *Premna coriacea* C.B. Clarke : A. flowering twig; B. calyx; C. flower; D. fruit. (V.S. Ramachandran 61613, MH).



Figs. 3. A-D : *Premna cordifolia* Roxb. : A. flowering twig; B. pistil; C. corolla split open; D. fruit. (Roxb. Fl. Indica Drawings t. 1462).



Figs. 4. A-D : *Premna corymbosa* Rottler : A. flowering twig; B. calyx; C. corolla; D. fruit. (S.R. Raju & Naganathan 17973, MH).

Pl. Ind. Orient. 4(3): 16. t. 1483. 1849; Thwaites, Enum. Pl. Zeyl. 243. 1861; Drury, Handb. Indian Fl. 2: 496. 1866, p.p.; Beddome, Fl. Sylv. S. India 12. 1872. *Gumira corymbosa* (Rottler) Kuntze, Revis. Gen. Pl. 2: 507. 1891. *Type* : as for the basionym.

Premna alstonii Mold. in Phytologia 28: 101 1974 (as *alstoni*), nom. invalid.; Sixth Summ. Verbenac. etc. 567. 1980; Mold. & A. Mold. in Dassan. & Fosb., Rev. Handb. Fl. Ceylon 4: 311. 1983.

Distrib.: India : Andhra Pradesh and Tamil Nadu. Sri Lanka.

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