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New and Critical Malaysian Plants V*

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1. *Brownlowia purseglovei* Kostermans—Fig. 1.
(Tiliaceae).

Arbuscula, foliis subobovato-oblongis, paginam inferiorem squamulis rotundatis minutis obtectam. Inflorescentia pauciflora bracteis bracteolisque magnis persistentibus. Petala rosea, oblonga, basin versus subcontracta. Calyx campanulatus, lobis magnis acutis, squamulis dense obtectis.

Typus.—Purseglove 4662 (SING).

Shrub, 3 m. Branches grey-brown, lenticellate. Stipules subulate, up to 12 mm. long, densely scaly. Leaves chartaceous, subobovate-oblong, up to 32 cm. long, 12 cm. wide; top conspicuously, broadly acuminate; base acutish; upper surface glabrous, glossy, nerves impressed; lower surface golden, densely covered with minute, round scales (scales with numerous radial lines); midrib strongly prominent; lateral nerves about 20 pairs, arcuately anastomosing near margin; the basal pair (or pairs) slightly ascendant; veins reticulate, prominulous. Petiole 1 cm. Inflorescence few-flowered, not or hardly branched, densely covered with scales. Bracts and bracteoles large, persistent. Pedicel 6–8 mm. Calyx 6–8 mm., cup-shaped, 3–4 lobed, (lobes slightly more than half the cup, acutish, triangular). Petals 3–5, pink, in bud imbricate, narrowly oblong, up to 3 cm., glabrous, narrowed towards base, apex acutish. Stamens numerous, filaments up to 1 cm. long, slender; anthers yellow, subpeltate (opened). The 5 staminodes glabrous, 6

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mm. long, narrowly lanceolate, acute. Ovary 1–2 mm., obovoid, densely covered with scales; style 9 mm.; stigma inconspicuous.

Distribution.—Only known from type locality.

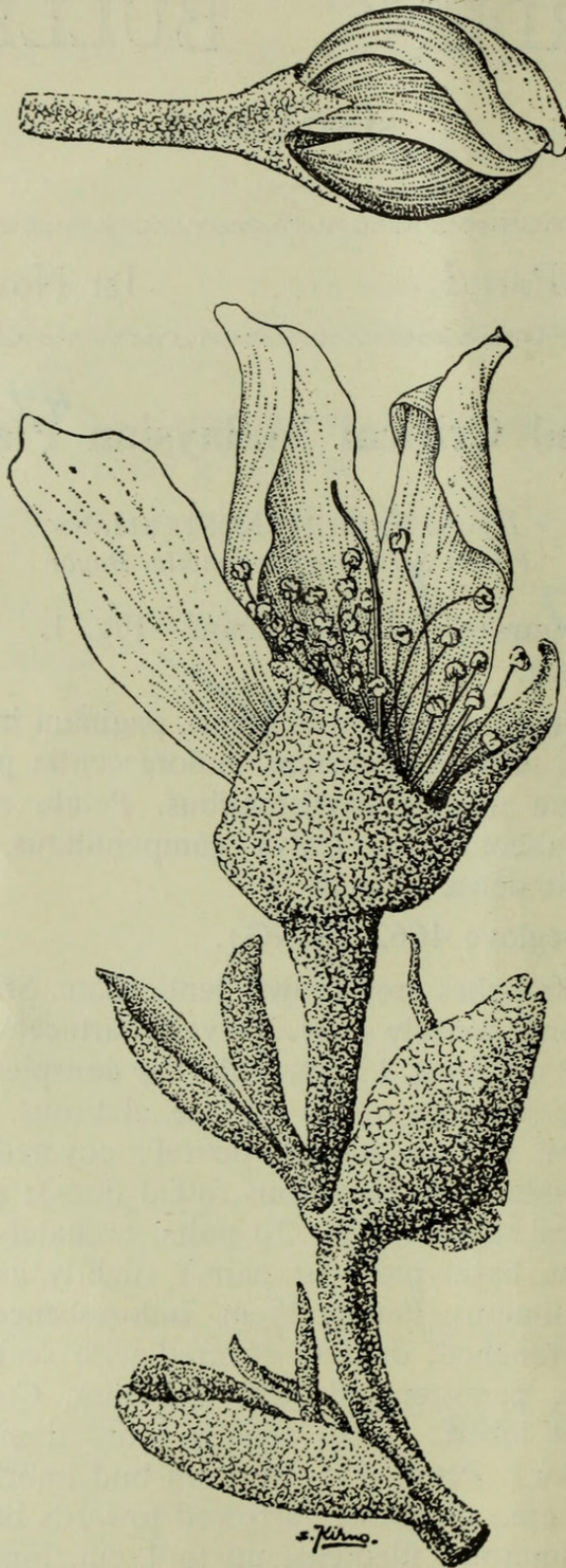


Fig. 1. *Brownlowia purselovei* Kostermans.

Bud $\times 5$; flower $\times 5$.

Specimens examined: Sarawak, G. Pueh, alt. 70 m., Sept., fl., Purselove 4662 (SING, BO).

The species is outstanding by its non-peltate, large leaves and large flowers. In the sheet at hand, one opened flower is present, which has 3 calyx lobes, 3 petals and 5 staminodes; there is also one bud, which has 5 petals.

The species is called after Mr. Purselove, former Director of the Botanic Gardens, Singapore, the discoverer of the specimen.

2. ***Alseodaphne magnifica*** Kostermans, spec. nov.—Fig. 2, 3.
(Lauraceae).

Arbor ramulis teretibus nitidis viridis (in sicco nigris) glabris; foliis chartaceo-coriaceis oblanceolatis ad obovato-ellipticis, acuminatis, basi in petiolum latum decurrente, discoloribus (in sicco). Inflorescentia axillaria paniculata paulo et breviter ramosa, floribus flavibus (post anthesin rubescentibus). Fructus ellipsoideus, niger, sub-obliquus, pedicello nudo impositus.

Tree, up to 32 m. tall; bole 21 m. long, 70 cm. in diameter. Buttresses thick, inconspicuous. Bark yellowish brown, rather flaky. Branchlets smooth, green (black when dried); apical bud acute, minutely sericeous. Leaves alternate, glabrous, chartaceous-coriaceous, glossy green (when dried dark brown beneath), oblanceolate to obovate-elliptical; top acuminate; base decurrent into the broad, up to 1.5 cm. long petiole; midrib, lateral nerves (about 7–9 pairs) and the lax reticulation prominulous (lateral nerves rather erect) on both surfaces. Inflorescences axillary, developing immediately below the new flush, sparsely, minutely sericeous, glabrescent, consisting of panicles of 2–5 cm. long with few and short branchlets; peduncle rather stout. Lateral branchlets bearing 2–4 flowers in axils of minute, triangular bracts. Pedicel rather stout, 2–4 mm. long, sparsely, minutely pilose. Flowers yellow, turning dark purplish red after anthesis, about 3–4 mm. in diameter; outer sepals shorter than inner ones, triangular-ovate, acute 1.5 mm. long; inner tepals ovate, acutish 2–2.5 mm. long. Stamens sessile, densely, minutely pilose; outer ones ovate, acutish, 1 mm. long with introrse, slanting cells; inner ones smaller, rectangular, obtuse, cells lateral; basal glands sessile. Ovary glabrous, ovoid-ellipsoid, 1–1.5 mm. long, style distinct, 1 mm., stigma conspicuous, peltate, laterally incised. Fruit ellipsoid, often a little oblique and club-shaped, glossy blue-black; endocarp 1–2 mm. thick, juicy; cotyledons large, flat-convex.

Typus.—Kostermans 11070 (BO).

Distribution.—Sumatra.

Specimens examined.—Sumatra. Lampong Districts, Gedang Harta, ster., Teijsmann H.B. 4429 (kaju djoos); West Coast Sumatra, Priaman, alt. 400 m., Apr., ster., bb. 6721 (medang djambu; fancy name) (BO, L); Hort. Bogor., culta sub V A 24, Oct., fl., fr., Kostermans 11070 (A, B, BO, BRI, BZF, UC, CAL, LU, CANB, BISH, K, KEP. L, LAE, MEL, NY, P, PNH, SAN, SING, NWS).

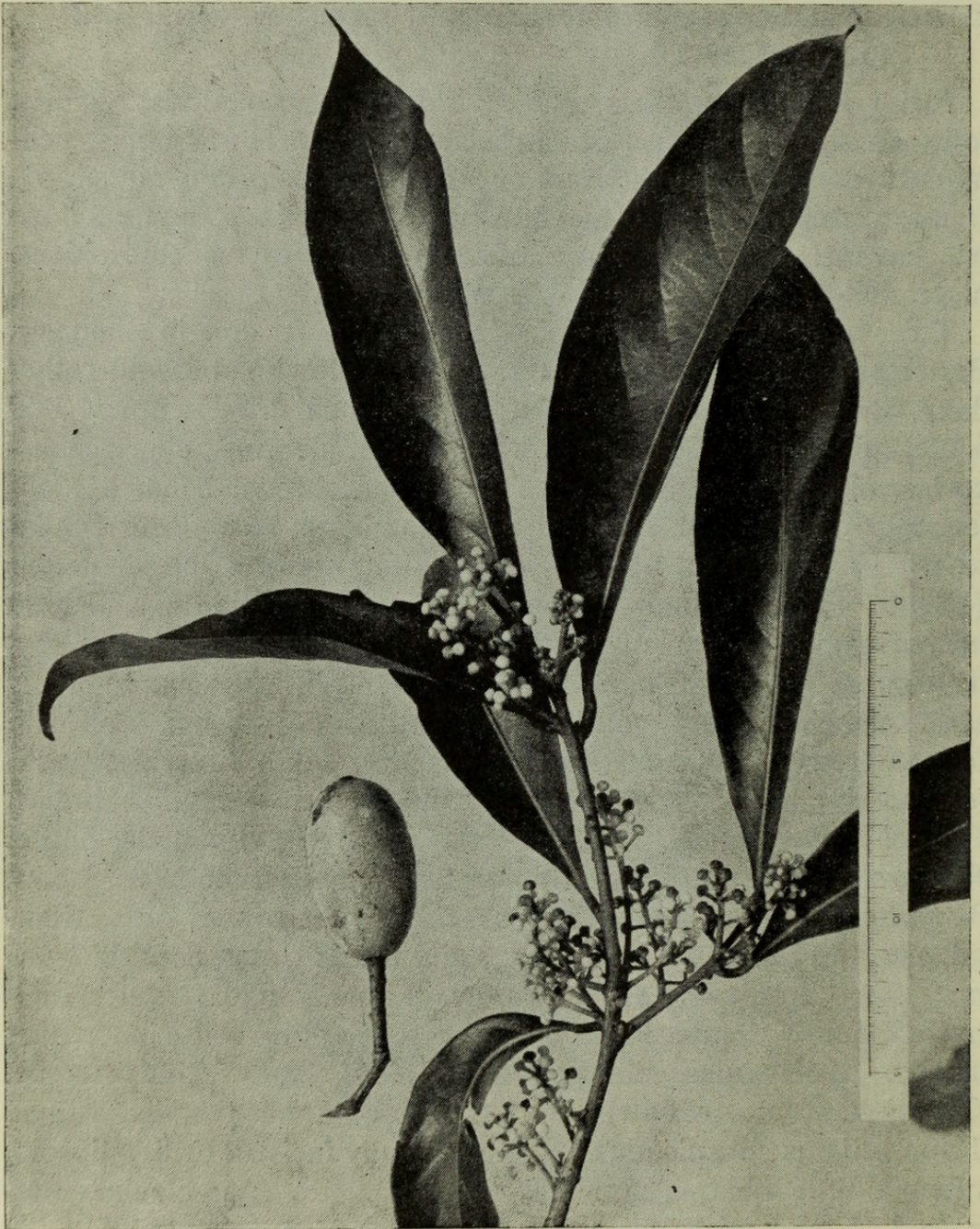


Fig. 2. *Alseodaphne magnifica* Kostermans.
Photo: Bot. Gardens, Bogor, 5th Nov., 1955.

It is possible, that the tree in the Bogor Gardens was grown from seeds of the specimen H.B. 4429. The vernacular names—as is usual in Lauraceae—have no value at all and should be considered as pure fantasy.

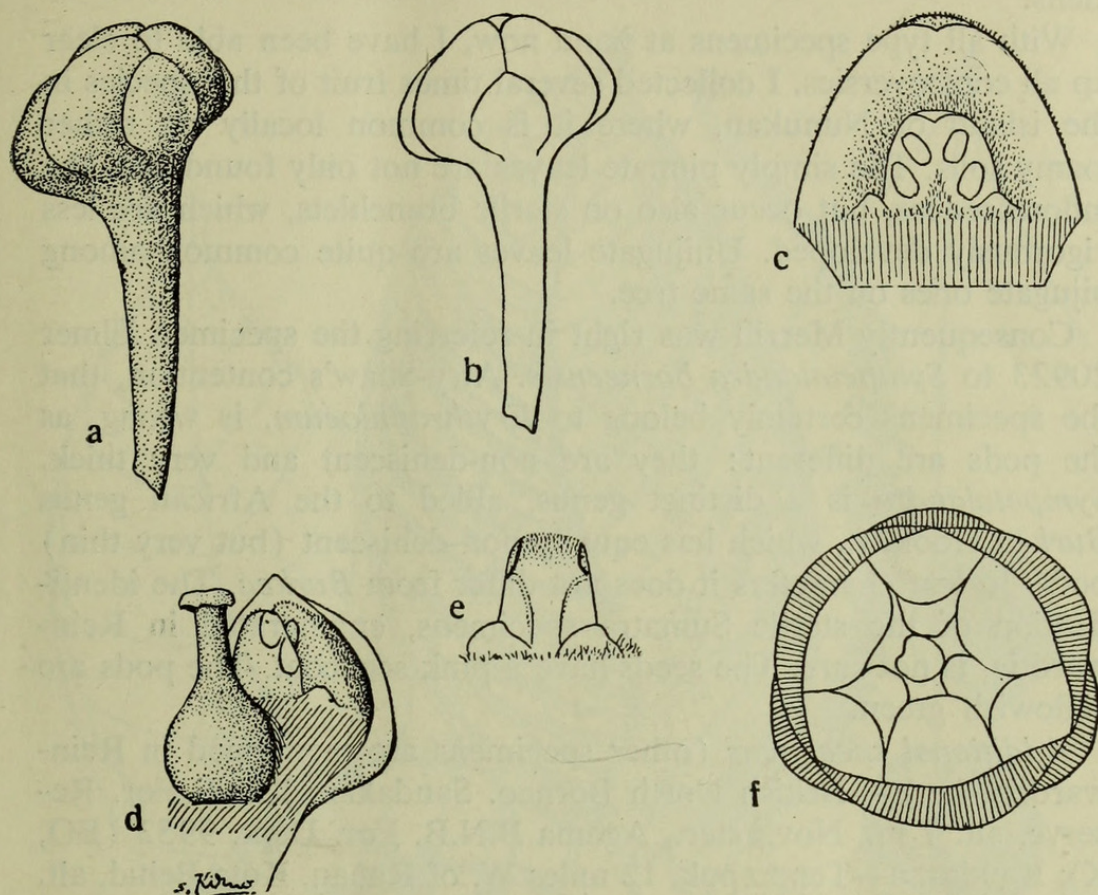


Fig. 3. *Alseodaphne magnifica* Kostermans no. 11070 29 Oct., 1955 Keb. Raya photo.

a & b, flowers $\times 5$; c, outer stamen $\times 10$; d, ovary $\times 10$; e, inner stamen $\times 15$; f, flower seen from above $\times 10$.

3. *Sympetalandra borneensis* Stapf

(Caesalpiniaceae-Dimorphandrae).

Sympetalandra borneensis Stapf in Hook. Icon. 4 (8): t. 2721. 1901; Merrill, Bibl. Enum. Born. pl. (J. Str. Br. Roy. Asiat. Soc. Spec. Numb.) 295. 1921; in Univ. Calif. Publ. Bot. 15: 98. 1929. —Haviland 1628 (K).

Erythrophloeum densiflorum (Elm.) Merr., l.c. (non aliis).—Villamil 52.

Erythrophloeum unijugum Airy-Shaw in Kew Bull. 1939: 180. —Agullana For. Dept. 1780 (K).

Serianthes gigalobium Kostermans in Reinwardtia 2: 357. 1953.—bb. 20030 (BO).

The reason why this species was described under four different names and three different genera originates from the fact, that the

leaves vary between simply pinnate to bipinnate (unijugate and bijugate) and that I described the species from a fruiting specimen, whereas Merrill and Airy-Shaw examined flowering specimens.

With all type specimens at hand now, I have been able to clear up all controversies. I collected several times fruit of this species in the island of Nunukan, where it is common locally on rather loamy soils. The simply pinnate leaves are not only found near the inflorescences, but occur also on sterile branchlets, which are less vigorously developed. Unijugate leaves are quite common among bijugate ones on the same tree.

Consequently Merrill was right in referring the specimen Elmer 20923 to *Sympetalandra borneensis*. Airy-Shaw's contention, that the specimens certainly belong to *Erythrophloeum*, is wrong, as the pods are different: they are non-dehiscent and very thick. *Sympetalandra* is a distinct genus, allied to the African genus *Burkea* Hook. f., which has equally non-dehiscent (but very thin) pods. In leaf characters it does not differ from *Burkea*. The identification of the sterile Sumatra specimens, enumerated in Reinwardtia, is not sure. The seeds have a pink seedcoat. The pods are yellowish green.

Additional specimens (other specimens are mentioned in Reinwardtia, l.c.).—British North Borneo. Sandakan, Kabili For. Reserve, alt. 7 m., Nov., ster., Agama B.N.B. For. Dept. 9953 (BO, K); Kadasan—Tenompok, 12 miles W. of Ranau, Kota Belud, alt. 1500 m., Dec. fr., San 16398 (BO, SAN); Sepilok For. Reserve, 15 miles W. of Sandakan, alt. 50 m., April, in bud, Wood & Charington, San. 16313 (A, BO, BRI, K, KEPONG, L, SING); ibid., June, fl., N.B.F.D. A808 (BO, K); Tawau, along bank of Marutai R., Agullana 1780 (BO, K). Sarawak, Kuching, Sept., in bud, Haviland & Hose 1628 (BO, K). Indonesian Borneo. East Borneo, Nunukan Isl., Nov., ster., Kostermans 8790 (A, BO, K, L, SING, PNH); ibid, Nov., fr., Kostermans 8727 (A, BO, K, L, SING, PNH); ibid., Nov., fr. Meyer 2176 (A, BO, K, L); ibid., young tree, Kostermans 8727A (BO, L).

Living material was brought by me to the Bogor Botanical Gardens, where it is cultivated.

Vernac. names.—Tadarun (Dusun—Kadasan).

4. ***Teijsmanniodendron sinclairii* Kostermans, spec. nov.**—Fig. 4.

Arbor, ramuli apice et petioli et foliorum pagina inferior et inflorescentia minute asperi. Folia elliptica rigide coriacea, petiolo apice incrassato. Inflorescentia racemosa, dense bracteosa, haud vel vix ramosa.

Tree 5 m. tall. Branches and branchlets compressed, stout, grey, the latter, minutely asperate. Living leaves medium green and glossy above with a yellowish tinge, yellowish green beneath. Dried leaves rigid coriaceous, bullate, glossy, glabrous above, less

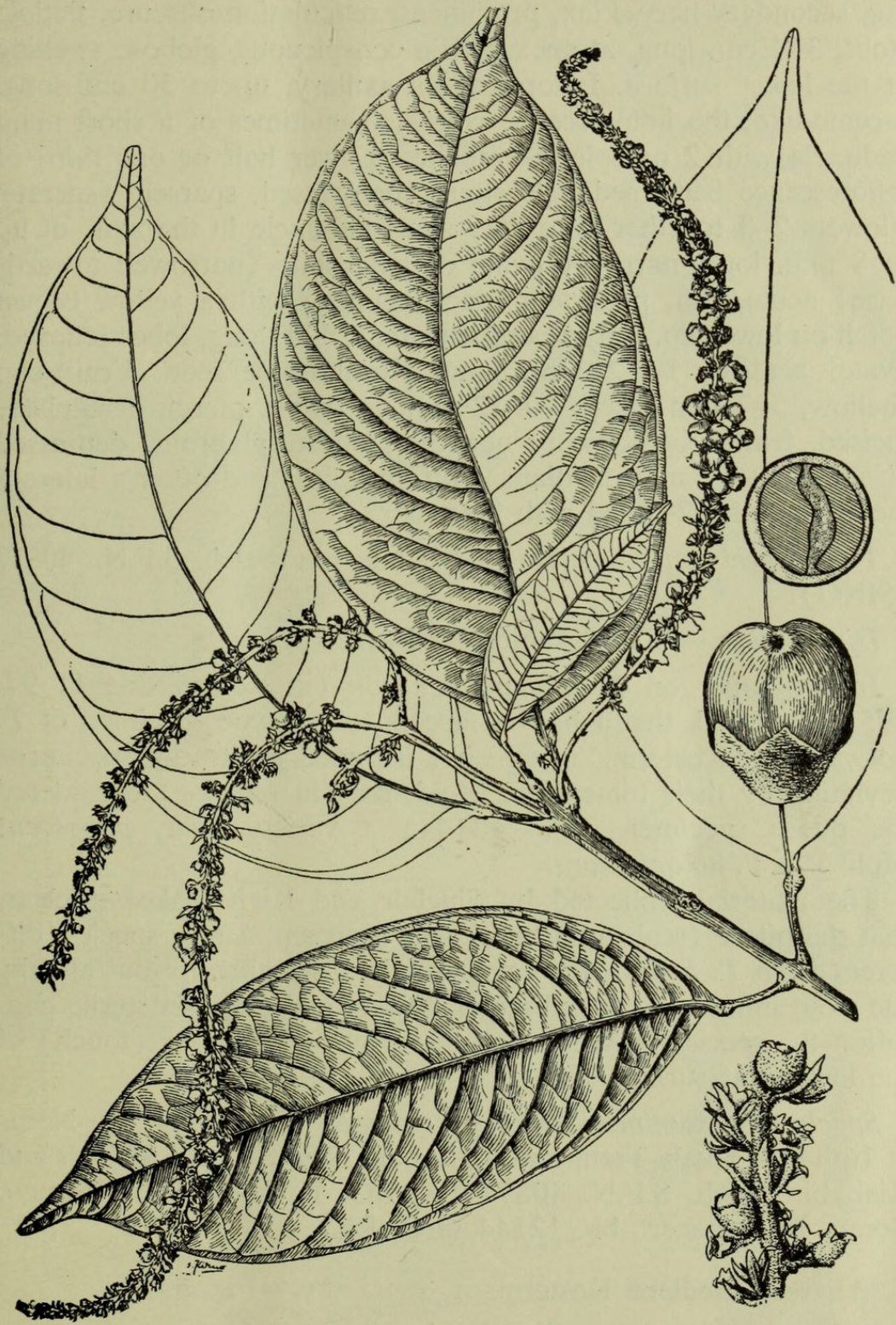


Fig. 4. *Teijsmanniodendron sinclairii* Kostermans.

After Kiah & Sinclair S.F.N. 40877. Flowering branch (not sure), fruit $\times 5$, part of inflorescence $\times 3$.

glossy and asperate beneath, elliptical, up to 13×25 cm., top acuminate, base acute, midrib prominent in a groove and nerves sunken above; lower surface: midrib prominent, lateral nerves (8–10 pairs) prominent, arcuate, near margin arcuately anastomosing, secondary nerves lax, prominent, reticulation obscure. Petiole stout, 3–4 cm. long, at apex with a conspicuous, globose swelling at the lower surface. Inflorescences axillary, up to 30 cm. long, raceme-like; the inflorescence consists sometimes of a short main peduncle with 2 or 3 long branches. Lower half or one third of inflorescence bare, peduncle stout, compressed, sparsely asperate. Flowers 2–3 together on a very short peduncle in the axils of up to 8 mm. long, narrowly ovate or lanceolate (narrowed towards base) acute, stiff, persistent bracts, purple, with a yellow brown patch on lower lip. Calyx campanulate, 3 mm. long, lobes reflexed, ovate, acutish, 1.5–2 mm. long. Corolla not seen. Fruit cup shallow, 5–7 mm. deep, 10–12 mm. in diam., margin irregularly incised, fruit subglobose to obovoid-globose, glabrous, depressed at apex, 10–12 mm. in diam. with an apical and often a lateral) median suture, 2-celled with 2 seeds.

Type specimen.—Sinclair and Kiah bin Saleh S.F.N. 40877 (SING).

Distribution.—Malay Peninsula, Borneo.

In my paper on *Teijsmanniodendron* (in Reinwardtia 1: 97. 1951), I stated, that I had no access to the type specimen of *T. holophyllum* Kosterm., in which I included arbitrarily specimens deviating by their tomentum. Moldenke (in schedae) considered the pilose specimens (bb. 12144) a variety (var. *pubescens* Mold.) of *T. holophyllum*.

The material, collected by Sinclair and Kiah makes it clear, that the pilose (scabrous) specimens represent a new species, different from *T. holophyllum* not only by its scabrosity but also by the stout inflorescence and larger flowers and fruit. In sterile condition the species is easily recognised by the scabrous (touch) of the lower leaf surface.

Specimens examined.—Malay Peninsula. Trengganu, Sg. Nerus at 16th mile Kuala Trengganu right bank, Sept., fl., fr., Sinclair and Kiah bin Saleh, S.F.N. 40877 (A, BO, K, L, SING). Borneo. Berau, Inaran, ster., bb. 12144 (BO, L).

5. *Abarema nediana* Kostermans, *spec. nov.*—Fig. 5.

Arbor parva ramulis cylindricis laevibus perparce perminuteque tomentellis, foliis bipinnatis bijugatis foliolis chartaceis, late ellipticis obscure acuminatis, basi in petiolulum contracta supra nitida



Fig. 5. *Abarema nediana* Kostermans.

glabra reticulata subtus terna perminute sparseque adpresse pilosa petioluli parvi; glandulis pedunculorum ovalibus, glandulis inter petiolulorum subrotundatis, rachillae basin versus glandulis minimis bigeminis.

Paniculae supra—axillaribus dense minuteque tomentellis, floribus sessilibus dense minuteque adpresse-tomentellis; ovario glabro, stipitato.

Typus.—N.B.F.D. A142 (BO).

Tree 13 m., 10 cm. in diameter; branchlets cylindrical, smooth, sparsely and very minutely pilose, with a few scattered pale tiny lenticels. Leaves bipinnate, bijugate; rachis pilose about 8 cm. long, near its base with an elliptical, about 2 mm. long, slightly raised gland with a central depression; base with 2 short (1 cm.) decurrent spurs; petiolar part 4–5 cm.; rachillae pilose, lower ones 1–2 cm. long, with 1 or 2 pairs of folioles, near their bases with a pair of minute, raised glands; interpetiolular glands raised, almost orbicular, 1 mm. in diameter; petiolules 2–3 mm. long; upper rachillae up to 6 cm. long, with 3 pairs of folioles; folioles chartaceous, broadly elliptical, the apical ones up to 5×7 cm., the basal ones 2×3 cm., apex obscurely acuminate, base contracted into petiole; above glossy glabrous with prominulous reticulation; lower surface dull with sparse, minute, apressed tomentum; lateral nerves 4–6 pairs.

Panicles slightly above the axils of the leaves, up to 30 cm. long, sometimes with leaves; densely, minutely tomentellous; flowers white, sessile, densely, minutely sericeous-tomentellous; calyx infundibuliform, 1.5–2 mm. long with 0.5 mm. long teeth; corolla 4–5 mm., with 2 mm. long, lanceolate, acutish lobes; staminal tube as long as corolla tube; ovary glabrous, stipitate.

Specimens examined.—Colony of North Borneo. Lumanggas Isl., Simporna, Lahad Datu Forest Distr., seashore. alt. 1 m., Oct., fl., B.N.B. For. Dept., A.142 (BO, K).

The species is named in honour of Mr. Nedi of the Staff of the Herbarium Bogoriense, who during 20 years has accumulated in astonishing knowledge of Indonesian plants and who is a much appreciated assistant in routine identifying.

The species is characterised by the twin glands near the bases of the rachillae.

According to a note on the field label the plant is used for cleaning teeth and seems to have medicinal properties for dental diseases.



Kostermans, A. J. G.H. 1958. "New and Critical Malaysian Plants, V." *The Gardens' bulletin, Singapore* 17(1), 1–10.

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