

MISCELLANEOUS BOTANICAL NOTES 5¹

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LAURACEAE

Dehaasia lanyuensis (Chang) Kosterm., comb. nov.

Endiandra lanyuensis Ching-en Chang in Acad. Sinica Inst. Bot. Bot. B., N.S. 4(1) : 60-63, 1963.

Through the courtesy of Mr. Ching-en Chang, I received a specimen of this species, which undoubtedly belongs to *Dehaasia*, although only 3 stamens (the outer ones) are fertile, whereas the inner ones are staminodial and tepalous (which never is met in *Endiandra*); moreover the long, fleshy pedicel, the yellow white, glossy branchlets and the reticulation of the leaf is typical for *Dehaasia*.

MELIACEAE

Lansium breviracemosum Kosterm., spec. nov.

Arbor mediocris ramulis minute lenticellatis apicem versus minutissime adpresse pilosis; innovationibus minute sericeis, foliis glabris, 7-9-foliolatis, foliolis chartaceis, ellipticis usque ad ovatis vel obovato-ellipticis, rarissime lanceolato-ellipticis, obtuse acumina-tis, basi cuneatis, dense prominulo-reticulatis, petiolulis distinctis, basi incrassatis; inflorescentiis axillaribus vel sub-axillaribus parvis, basin versus pilosis, sub-racemi-formibus, ramulis brevissimis, distantibus.

Fruit globose, greenish-grey, minutely, densely pilose, 10-15 mm in diameter; pericarp leathery, 0.5-0.7 mm thick; seeds usually 3 (one in each cell), ellipsoid, 7-10 mm long, 4-6 mm in diam.; testa coriaceous, thin.

Typus: Kostermans 18311 [BO].

The species is quite common on the slopes of the Batulante Mt., Sumbawa, where it occurs, together with another undescribed species, from 700-1000 m altitude and lower down in the moist ravines. The specimen Kostermans 18243 has lanceolate-elliptical folioles of up to 4 × 15 cm.

The local name: Narab suai.

West Sumbawa, Mt. Batulante, trail from Batudu-

lang to Pukis, alt. 700-800 m, April, fl., fr., Kostermans 18311 [A, BO, CANB, K, L, LE, P]; *ibid.*, trail from Batudulang to Pusu, alt. 900-1000 m, Oct., fr., Kostermans 19087 [A, BH, BO, C, CANB, G, K, L, NSW, P, SING, US]; *ibid.*, road from Batudulang to Punik, alt. 700 m, Nov., fr., Kostermans 19195 [A, BO, C, CANB, K, L, US]; *ibid.*, trail from Batudulang to summit, alt. 700-800 m, April, fl., Kostermans 18269 [A, BO, CANB, K, L]; *ibid.*, April, fl., Kostermans 18243 [A, BO, G, K, L, LAE, LE, P, PNH, SING, US].

STERCULIACEAE

Scaphium longepetiolatum (Kosterm.) Kosterm., comb. nov.

Microcos longepetiolatum, the base of this name, has been described bracteis minutis persistentibus; floribus sessilibus, calycibus urceolatis, minute pilosis, lobis explanatis brevis, petalis suborbicularibus concavis, glabris; staminibus 10 annulum distinctum adnatum; ovarium cylindricum sericeum stigmatibus planum.

A small tree, up to 15 m high and 15 cm in diameter. Buttresses small. Bark smooth, pale brown, 0.5 mm thick, inside white; living bark 2-3 mm, green or light brown. Branchlets glabrescent, longitudinally striate with scattered, small, elongate lenticels. Leaf-buds densely, minutely sericeous. Leaves up to 27 cm long (petiole 4 cm, pilose), spirally arranged, imparipinnate; folioles (5-) 7-10 (-11), usually 9, chartaceous, glabrous, ovate-elliptical to elliptical, rarely obovate-elliptical or lanceolate-elliptical, 5-14 × 3-6 cm, up to 7 × 15 cm, base acute or cuneate, apex bluntly acuminate; reticulation prominulous on both surfaces, dense; midrib slightly impressed on upper, prominent on lower surface; lateral nerves (6-) 8-10 pairs, slender, slightly arcuate; petiolules up to 2 cm long, base swollen.

Inflorescences axillary and on the bare branchlets, 5-40 mm long, towards base pilose, racemiform, unbranched or with a few, up to 3 mm long, widely spaced branchlets, provided with concave, ovate, acute, tiny bracts. Flowers sessile, subtended by a tiny bract. Calyx cup-shaped, 1.5 mm long with scattered, tiny hairs, lobes explanate, usually broader than long, acutish, 0.5-1 mm, margin minutely fringed. Outer

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corolla lobes orbicular, concave, glabrous, fleshy, white, 2-2.5 mm long, inner ones narrower, more elongate. Stamens 10 in one whorl, attached internally to a smooth, fleshy, circa 1-2 mm high tube, mouth sub-entire, 1-1.5 mm diam. Ovary cylindrical, sulcate, 3-5-celled, densely silky pilose, topped by a flat, fleshy, slightly broader stigma, tapering into the ovary (in Reinwardtia 6 : 301, 1963) after the specimen : Meyer, San 19494. Dr. W. Meyer pointed out to me that it represents *Scaphium* and additional material with some flowerbuds confirmed his contention.

The valvate sepals are ovate-acute, densely pilose outside. The flower has a short, thick, pilose androphore ; the anthers are in an irregular globose clump. At the base of the androphore are many silky bristles.

TILIACEAE

Brownlowia paludosa Kosterm.

Of this species formerly known from Indochina only, the following additional material has come to my attention : Siam ; Ta Uten, Nakawn Panom, alt. 200 m, mixed forest ; tree of 8 m with white flowers, May, fl., Kerr 21376 [BO, K] ; Chantaburi, alt. 200 m, tree 15 m, flowers white, May, fl., Kerr 21338 [BO, K].

Brownlowia palustris Kosterm., spec. nov. (Pl. 1).

Arbor parva, ramulis et innovationibus dense stellato-pilosis, foliis chartaceo-coriaceis, late ellipticis, basi truncatis vel subcordatis, apice breve acuminatis, supra glabris, nervis impressis, subtus perdense stellato-lepidotis, nervis stellato-pilosis, petiolis longis. Fructus dense minutissime stellato-lepidotus.

Typus : Kostermans 21699 [BO]

Small tree, up to 15 m high, 15 cm in diameter ; bark roughish, grey, thin ; living bark 5 mm, pale, turning yellow after exposure. Buttresses small. Branchlets densely pale brown stellate-pilose. Leaves chartaceous-coriaceous, broadly elliptical, up to 4-8.5 × 5-14 cm, base rounded or rarely subcordate apex very shortly acuminate ; upper surface glabrous, glossy, nerves impressed ; lower surface densely, minutely lepidote (scales long-fimbriate, the fringe straight), on main nerves stellate hairs ; basal nerves two (with 2 small accessory ones) ; lateral nerves 3-4 pairs, near margin arcuate ; secondary nerves slender, parallel. Petiole up to 6 cm long, densely pale-brown stellate-pilose, swollen at both ends. Fruit subglobose, densely, minutely stellate-pilose, up to 3.5 cm in diam., shaped like a golfstick-club, deeply sulcate at the ventral side.

The species is close to *B. riparia* and *B. sara-*

wakensis ; differs by its indumentum of branchlets and leaves and petioles and by the different leaf base. The fruit of *B. riparia* and *B. sarawakensis* are unknown.

East Indonesian Borneo (Kalimantan), Berau, near Tandjung Redeb, periodically inundated soil, rare tree, Dec., fr., Kostermans 21699 [BO, K, L, P].

Brownlowia sarwonoi Kosterm., spec. nov. (Pl. 2).

Arbor parva, ramulis innovationis stellato-lepidotis, foliorum facie inferiorum dense minute adpresse lepidota ; foliis coriaceis ellipticis basi obtusis vel subcordatis interdum subpeltatis, supra glabris nitidis, subtus dense lepidotis cum pilis simplicibus rigidis, triplinerviis, apice acuminatis ; petiolis dense stellato-pilosis longis ; fructus magnus dense minutissime stellato-lepidotus.

Typus : Kostermans s.n. [L].

Small tree along rivulet on periodically (tidal)

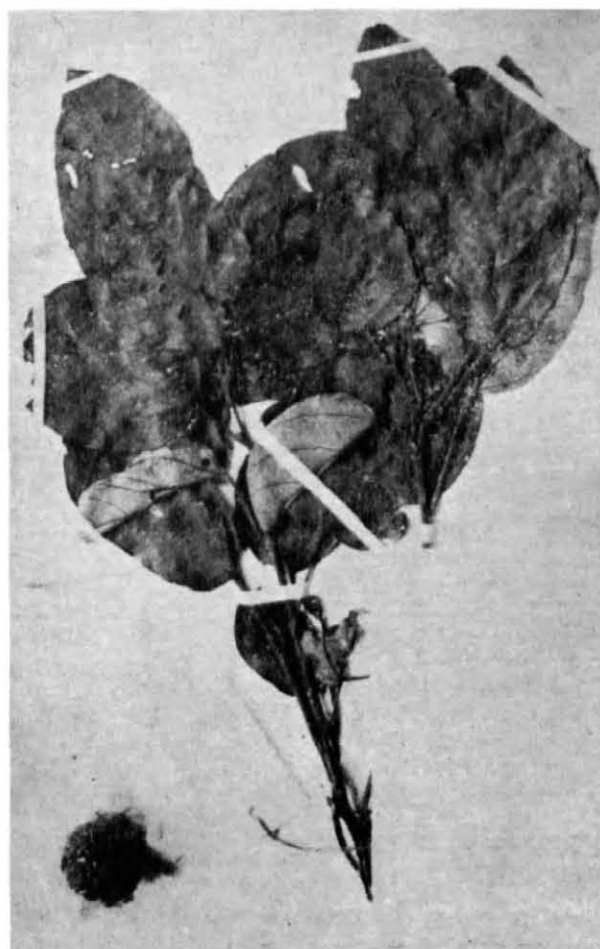


Plate 1 : *Brownlowia palustris* Kosterm.—Holo-typus.

inundated soil, up to 6 m tall and 18 cm in diameter ; bark smooth, pale. Branchlets and buds densely minutely stellate-lepidote. Leaves coriaceous, elliptical, $7-13 \times 4-6$ cm, base rounded, sometimes slightly cordate, often slightly subpeltate, apex shortly acuminate ; upper surface glossy, glabrous, main nerves impressed ; lower surface densely, minutely adpressed lepidote (scales not fimbriate) together with scattered stiff conspicuous bristles (dense on midrib) ; basal nerves 2 (with often 2 short accessory ones) ; lateral nerves

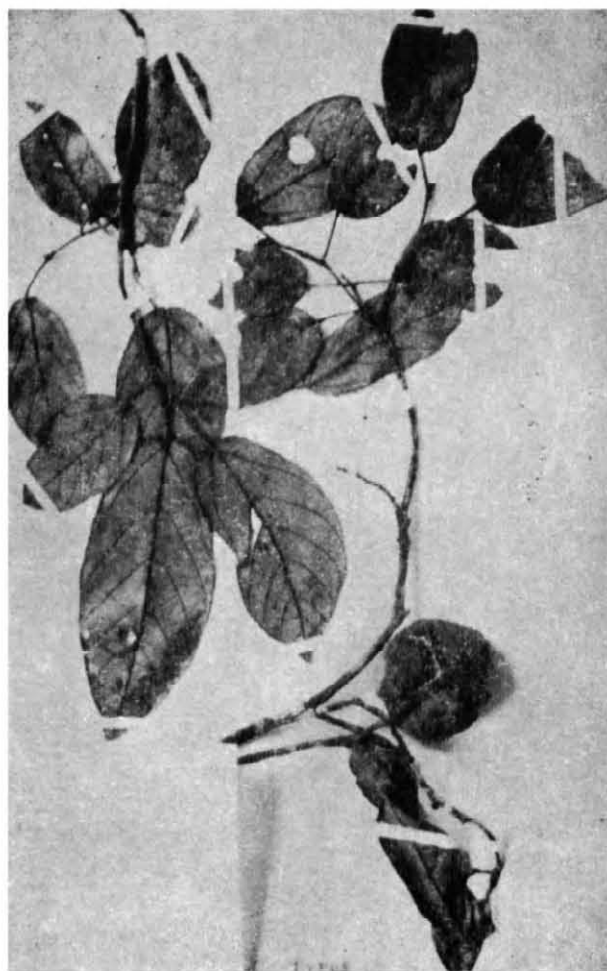


Plate 2 : *Brownlowia sarwonoi* Kosterm.—Holo-typus.

4-5 pairs, prominent, arcuate towards margin ; secondary nerves parallel, distant, prominent ; petiole 2-4 cm long, densely stellate-pilose, thickened at base. Infructescence short, terminal, 3 cm long, densely, minutely stellate-lepidote ; fruit on a thick, 3 mm long pedicel, ovate-globose, flattened, deeply sulcate at the ventral part, densely, minutely stellate-lepidote, 5.5 cm in diam.

East Indonesian Borneo (Kalimantan), Berau near Tandjung Redeb, along small rivulet near Berau River, periodically inundated (fresh water) by the tides ; scarce, December, fr. Kostermans s.n. [BO, K].

The species is characterized by the long stiff bristles of the lower leaf surface and the large fruit. It is named in honour of Professor Sarwono Prawirohardjo, President of the Council for Sciences of Indonesia, who has been very active in promoting Science in Indonesia. As a result of his continuous interest and cooperation a new herbarium building is being built.

Burretiodendron siamense Kosterm.

Description of the male flower and fruit :

Pedice up to 1.5 cm long ; rather stout, densely, pale-brown, stellate pilose ; flower subtended by two large, broadly ovate, slightly concave, acute, longitudinally veined, densely stellate-pilose, 10×6 mm, bracts, forming an epicalyx (?). Calyx of 5 lanceolate-ovate, rather fleshy lobes, outside densely stellate-pilose, acute, up to 10 mm long and 4 mm wide ; petals membranous, free, shortly clawed, broadly elliptic, obtuse, denticulate-ciliate at the apex, slightly longer than the sepals. Stamens numerous in 5 phalanges ; ovary none. Fruit up to 6 cm long and 2.5 cm in diameter.

Siam ; Kao Tao, Prachap, alt. 130 m, tree of 8 m, Dec., fl., Kerr 16171 (BO, K) ; Hui Yang, Prachap, Nov., fr., Put 3194 (BO, K) ; Kan Kredai, Prachap, Jan., fr., Put 2334 (BO, K) ; Sam Rai Yawt, Prachap, Dec., fr., Put 2493 (BO, K).

In flower characters the species is closely related to *B. esquirolii*.

Burretiodendron umbellatum Kosterm.

Burretiodendron umbellatum [Reinwardtia 6 : 299, (1962), 1963] was based on the specimen Put 4080 from Siam. Additional and better material of the same collection revealed that this species is identical with *Mansonia gagei* Prain (Sterculiaceae).

Mansonia gagei differs from *Burretiodendron* in having a spathaceous calyx (not visible in the bud), a longer androgynophore than in *Burretiodendron*, one-celled anthers, a ring of staminodes (exactly as in *Brownlowia*) and free, winged cocci (in *Burretiodendron* the cocci are less free and the wing is different).

The one-celled anthers point to Malvaceae, rather than to Sterculiaceae (as also stressed by Prain). In other respects *Mansonia* is much nearer to *Burretiodendron* and *Craigia* in Tiliaceae than to genera of Sterculiaceae.

I am convinced that ultimately the distinction between Malvaceae, Bombacaceae, Sterculiaceae and Tiliaceae cannot be upheld and *Mansonia* and *Craigia* present intermediate genera.

As expressed by Prain one-celled anthers are not uncommon in Sterculiaceae (although the anthers are usually paired and point to the possibility of having originated from two-celled anthers); in *Mansonia* they are also paired.

Local people mix *Mansonia gagei* and *Burretiodendron siamense*; both are called Kalomet (vide Prain); the plant called Kalomet B in Prain's paper represents *Burretiodendron siamense* (cf. my note in Reinwardtia).

***Diplodiscus aureus* Kosterm., spec. nov. (Pl. 3).**

Arbor magna ramulis perdense aureo-lepidotis, lepis minutissimis vix fimbriatis, foliis chartaceis, ellipticis vel subobovato-ellipticis basi rotundatis vel subacutis apice breve acuminatis supra glabris nitidis nervis prominulis subtus aureis perdense lepidotis, lepis pro genere magnis longe fimbriatis, nervis basalibus 2 adscendentibus.

Typus: Kostermans 21609 [BO].

Tree 35 m tall, 90 cm in diameter; buttresses 2 m high, out 1 m. Bark roughish. Branchlets densely covered by tiny, hardly fimbriate, aureous scales. Leaves alternate, chartaceous, elliptical to subobovate-elliptical, up to 8 × 25 cm, base rounded or subacute, apex shortly, obscurely acuminate; upper surface glabrous, glossy, main nerves prominulous; lower surface covered with a dense layer of aureous, fimbriate, comparatively large scales; the fringe straight; midrib prominent, basal nerves 2, ascendant to about half the leaf size, lateral nerves about 5 pairs, arcuate, running out along the margin, prominent; reticulation prominulous. Petioles 1-1.5 cm long, lepidote.

Although the specimen is sterile, its peculiar indumentum makes it easily distinguishable. The tree was common locally. The possibility that it represents *Microcos* cannot be ruled out entirely.

Indonesian East Borneo (Kalimantan), Berau, near Teluk Bajur, hilly forest, alt. 30 m, Nov., ster., Kostermans 21608 [BO, K, L, P].

***Diplodiscus decumbens* Kosterm.**

During a recent expedition in East Indonesian

Borneo, I collected a specimen which shows all the characters of *D. decumbens*, except that it is a tree of 10 m tall with a short bole of 40 cm in diam. and usually shorter (up to 20 cm) leaves, but some leaves reach 40 cm. As I cannot find any differences in the indumentum and the flowers are similar, I consider this specimen conspecific with *D. decumbens*.

Indonesian East Borneo, Berau, near Tandjung Redeb, low, along rivulet, sandy soil, Dec., fr., Kostermans 21706 [A, BISH, BM, BO, CAL, CANB, G, K, L, LAE, NY, SING].



Plate 3: *Diplodiscus aureus* Kosterm.—Holo-typus.