

REVISION OF THE SAPOTACEAE OF THE MALAYSIAN AREA
IN A WIDER SENSE

IVb. *Ganua* Pierre ex Dubard
(2nd Supplement)

by

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(Issued 15. VI. 1957).

The present paper comprises supplementary notes on *Ganua*, based on material which has come to our knowledge after the last contribution on the genus had been published.

In the following text the previous papers have been referred to as follows:

Van den Assem 1953 = Rev. Sap. IV. *Ganua* in *Blumea* 7 (2), 1953, 364—400.

Van den Assem & Kostermans 1954 = Rev. Sap. IVa. *Ganua* (Add. Notes) in *Blumea* 7 (3), 1954, 481—483.

There are some interesting new localities (*G. beccarii*, *daemonica*, *monticola*, *motleyana*) and in two cases (*G. boerlageana*, *prolixa*) the fruits which were unknown are described.

G. beccarii Pierre ex Dubard — Van den Assem 1953, 380.

BORNEO. North Borneo, Sipitang, Ulu Sipitang, 5 miles E of Sipitang, 150 m alt.: *Wood & Kapis b. Sisiran F. D. Sar. 16926* (A, BO, BRI, K, KEP, L, SAN, SING), tree 16.5 m, y. fr. in July 1955.

First record outside Sarawak.

G. boerlageana (Burck) Pierre ex Dubard — Van den Assem 1953, 385.

In previous publications it was stated that the fruit of *G. boerlageana* is unknown. However, a fruit was found in the liquor collection of the "Rijksherbarium", probably belonging to the type specimen (cult. Hort. Bot. Bog.). The fruit is 3.5 × 1.35 cm, broadest at base, tapering towards apex, two-seeded, seeds almost as long as fruit, with long and narrow scar, albumen none or very thin.

G. coriacea Pierre ex Dubard — Van den Assem 1953, 389.

BORNEO. Sarawak, Sibü, in swamps: *Anderson, F. D. Sar. 1563*, ster. 1954; Loba Kabang South P. F., in mixed swamp forest: *Anderson, Sar. F. D. S. 0545* (FHO, L, SAR), small tree without buttresses, bark smooth, reddish brown, latex little, wood hard and heavy, flow. in March 1954, nat. n.: ketiau merah; same loc.: id. *S. 2714*

(FHO, L, SAR), ster., nat. n.: nyatoh; id. *S. 2692* (FHO, SAR). An accompanying sheet adds as belonging here: *S. 0526, 0857, 0867, 0875*; these nrs were not available to us; girth rarely more than 4 ft, bole cylindrical, no buttresses, bark reddish brown as is midrib when dry, sapwood light brown, heartwood dark brown, moderately hard and heavy, numerous small lenticellate knee roots at base; common in mixed swamp forest in Rejang Delta, frequent in alan type forest, absent from padang alan; id. *S. 08931* (FHO, SAR) in alan type for., ster.; id. *S. 05121* (FHO, SAR). Both last-named numbers sterile, leaves unusually large, up to 12 × 6 cm.

Remark. The native name ketiau merah (merah = red) refers to the reddish colour of the bark in contradistinction to *G. pierrei* (k. puteh; puteh = white).

G. curtisii (K. & G.) H. J. Lam — Van den Assem 1953, 388.

BORNEO. Brunei, Badas line 5½ miles: *Anderson, Sar. F. D. S. 2815* (FHO, L, SAR), small tree, no buttresses, bark smooth.

Remark. The field label mentions the name *G. ridleyi* (sic) without author's name. This being unknown in literature, it is probably a nomen nudum.

G. daemonica Van den Assem, 1953, 394.

BORNEO. North Borneo, Sipitang, Ulu Moyah, 8 miles SSE of Malaman, 730 m alt.: *Wood, For. Dept. San. 16675* (A, BO, BRI, K, KEP, L, SAN, SING), tree 33 m, flow. in Sept. 1955.

First record outside Sarawak.

G. kingiana (Brace) Van den Assem.

Var. *kingiana* — Van den Assem 1953, 373; Van den Assem & Kostermans 1954, 481.

MALAYA. Singapore, Bukit Timah For. Res.: *J. Sinclair, Sing. F. Nr. 40035* (L, SING), ster., latex white, abundant; leaves juvenile, bark smooth, no buttresses; identification not fully certain.

Var. *euphlesia* Van den Assem 1953, 374; Van den Assem & Kostermans 1954, 481.

BORNEO. North Borneo, Sandakan, Cpt. 14, Sepilok For. Res., 15 miles W of Sandakan, 10 m alt.: *Wood & Charington, For. Dept. San. 15395* (A, BO, BRI, K, KEP, L, SAN, SING); tree 30 m, flow. in April. Ovary 12-celled, cells short and complete.

G. monticola (Merr.) H. J. Lam — Van den Assem 1953, 379.

BORNEO. Sarawak, Loba Kabang South P. F., in mixed swamp forest: *Anderson, Sar. F. D. S. 05261* (FHO, L, SAR), small tree, probably immature. This specimen, if correctly identified, confirms that the area of this species actually includes Borneo.

G. motleyana (de Vr.) Pierre ex Dubard.

Var. *motleyana* — Van den Assem 1953, 382; Van den Assem & Kostermans 1954, 482.

MALAYA. Johore, Sungai Tiram: *J. Sinclair, Sing. F. nr. 40328* (L, SING), tree, 25 ft, bark brownish grey, slightly pustular, latex white, copious, lvs glossy green above, paler beneath, petals greenish white, reflexed, ciliate at margins, anthers pale yellow, filaments greenish white, flow. in July 1954; Mawai: *E. J. H. Corner, Sing. Field nr 28442*, fr. in May 1954.

BANGKA. Djebus: (*Teysmann*) 3341 H. B. (U), nat. n.: ketiau.

BORNEO. S.E. Borneo, Sg. Wain region, N of Balikpapan, 10 m alt., sandy loam soil: *Kostermans 4457* (BO, L), tree 20 m, 14 m clear bole, diam. 0.35 m, bark

smooth, flow. dirty yellow, Sept. 1950, nat. n.: njato — Sarawak, Muhong, fresh-water swamp for.: *Barthe, Sar. F. D. S. 0671* (FHO, SAR), large tree, bark with shallow fissuring, latex white, seeds collected by natives for fat, fr. in Jan. 1954, nat. n.: ketioh; same hab., Loba Kabang South P. F. in padang alan: *Anderson, Sar. F. D. S. 2722* (FHO, L, SAR), small tree, no buttresses, bark smooth, lenticels numerous, latex white, copious, ster., nat. n.: nyatoh padang; also *Sar. F. D. S. 2618* (FHO, L, SAR), and *S. 2768* (FHO, SAR), ster.; Sedilu F. R., Sadong: *Carroll, F. D. Sar. 534* (SAR), old flow. July 1927, nat. n.: ketio.

BURMA. Tenasserim: Reporter on Econ. Prod. Govt. of India 24866 (K), a specimen sub nomine *Payena oleifera* Prain & Watt, MS, nat. name: kanswe; old flow. and fr. Undoubtedly this species though the sepals (in old flowers) are not tufted. Probably wild.

The records from Bangka and Tenasserim are new.

Var. *scortechinii* K. & G. — Van den Assem 1953, 384.

BORNEO. British North Borneo, Banting (Mengalong F. R.), swampy forest, B.N.B. For. Department: Melegrito 3207† (K, L), tree, 30' high, girth 39", flow. pale green, young buds on 17. VI. 1933.

Young flower buds only; the vegetative characters correspond with those of the type of the variety; if the identification is correct, first record of the variety outside the Malay Peninsula.

G. palembanica (Miq.) Van den Assem & Kostermans 1954, 482.

BORNEO. East Borneo, Balikpapan, Sg. Mentawio, on low sandy ridges: *Kostermans 9781* (BO, L), scattered treelet, 4 m, white latex.

Perfectly matching the type specimens from Sumatra; cf. note under *G. pierrei*.

G. pallida (Burck) H. J. Lam — Van den Assem 1953, 377; Van den Assem & Kostermans 1954, 481.

BORNEO. Sarawak, S. Semengoh F. R., in the hills: *Carroll, F. D. Sar. 226* (= *F. 22*) (SAR), brownish bark, sticky white sap, light planks; old flow. Febr. 1915, nat. n.: nyatoh putat — S.E. Borneo, Balikpapan, S. Nain, old for., 30 m alt.: *Achmat F.R.I. bb. 34.416* (BO, L), y. tree, 21 m, diam. 0.22 m, ster.

Remark. The Sarawak specimen is that mentioned by Lam (Bull. Jard. Bot. Buit., Sér. III, 8 (4), 1927, 427), which Van den Assem 1953 states to be untraceable.

G. pierrei Van den Assem 1953, 392.

BORNEO. Sarawak, Loba Kabang South P.F., common in mixed swamp forest in Rejang Delta, frequent in alan type forest, absent from padang alan: *Anderson, Sar. F. D. S. 0469* (FHO, L, SAR), medium-sized tree, bole cylindrical, girth 27", no buttressing, bark smooth, pale brown, with numerous lenticels in rows, latex little, flow., nat. n.: ketiau; same loc. and annot.: idem *S. 0521* (FHO, SAR), ster.; idem *S. 0534* (FHO, SAR), ster.; idem *S. 2690* (FHO, SAR), ster., nat. n.: ketiau puteh; idem *S. 2683* (FHO, SAR), ster., nat. n.: ketiau puteh; Naman F. R., in mixed swamp forest: *Anderson, Sar. F. D. S. 0684* (FHO, L, SAR), small tree, girth 48", no buttresses, bark light grey, white sticky latex, wood very light brown, moderately hard, with dark brown heartwood, with very prominent stipules, ster.

Remarks. The native name ketiau puteh (puteh = white) refers to the light grey or light brown colour of the bark, in contradistinction to *G. coriacea* (k. merah).

As is stated on the label of *S. 0684*, the stipules are very striking,

though they seem to fall off at an early stage. This is probably why the original description (Blumea 7 (2), 1953, 394) says: without stipular organs. The stipules are ribbon-shaped and up to 1.5 cm long and 0.15 cm wide, closely resembling those of *G. palembanica* (Miq.) Van den Assem & Kostermans (Blumea 7 (3), 1954, 482). This seems to corroborate our opinion that the last-named species — originally described as a *Podocarpus*! — is actually a *Ganua*, and I would not be surprised if *G. pierrei* and *G. palembanica* would in the end prove to be conspecific.

***G. prolixa* Pierre ex Dubard — Van den Assem 1953, 375.**

BORNEO. Sarawak, Nanga Pelagos: Daud & Taohun 931, Sing. F.N. 35667 (L, SING), tree 9 m, fr. yellow in July 1938; nat. n.: nyatoh; Btg Bejang, Giam Bidai: Mashor 376, F.D. Sar. F.A. 0648 (SING), ster.

First specimens seen to possess fruits, which are globular, velvety villous, chocolate coloured when dry, 1.7—2 cm in diam., sepals and pedicels hirsutely villous, sepals acute, 0.6—0.7 cm long and almost as wide.

***G. sarawakensis* Pierre ex Dubard — Van den Assem 1953, 375.**

BORNEO. North Borneo, Sandakan, Cpt. 7, Sepilok For. Res., 15 miles W of Sandakan, 10 m alt.: Wood, Sand. For. Dept. 16238 (A, BO, BRI, K, KEP, L, SAN, SING), tree 25 m, flow. April 1955, sec. nerves up to 23.