

THE GENUS *LOPHOPYXIS* HOOK. f.  
(LOPHOPYXIDACEAE)

H. SLEUMER

When revising the *Icacinaceae* from SE. Asia and Malesia recently, my interest was drawn again to the genus *Lophopyxis* Hook. f. Designated by its author (1887) tentatively as a member of the *Euphorbiaceae*, it was rejected from this family by Pax as early as 1890. Engler (1893) transferred *Lophopyxis* to the *Icacinaceae* as the type of a new subfamily *Lophopyxidoideae*. Hallier f. (1910) disputed Engler's view and retained it in the *Euphorbiaceae*, from which it was excluded again by Pax & Hoffmann in 1931. A possible place in the *Rhamnaceae* and *Flacourtiaceae* was considered and rejected by Gilg in 1918; Bakhuizen van den Brink Jr. & van Steenis (1966) likewise rejected the former, though its alliance with the *Rhamnaceae* was firmly expressed by Airy Shaw (1966). Other authors, as Pierre quoted by Boerlage (1890), inserted *Lophopyxis* in the *Saxifragaceae*, Schumann (1898) in the *Olacaceae*, and Ridley (1922) in Bentham's *Olacineae*. In more recent times the genus was referred again to the *Icacinaceae* by Schellenberg (1923) and Kanehira (1931), but excluded from that family by Hallier f. (1921) and Sleumer (1942). Dahl (1955), discussing the pollen morphology of *Lophopyxis*, stated that the range of pollen forms known to exist within the *Euphorbiaceae* could include that of *Lophopyxis*. Erdtman in the newest edition of his 'Pollen Morphology and Plant Taxonomy' (1966) still placed it under *Euphorbiaceae*. Hutchinson (1959), and subsequently Scholz (1964), place it in the *Celastraceae*. Though *Lophopyxis* fits in the general circumscription of the *Celastraceae*, and shares the winged fruit with the subfamily *Tripterygioidae*, it cannot be placed in the latter, which all have basal ovules, whilst *Lophopyxis* has pendent (and certainly epitropous) ones. If placed in the *Celastraceae*, it would keep an isolated position, as, for instance, does *Siphonodon*.

There is thus no certainty as to the right place of this genus, whose gross morphology, wood anatomy, embryology, and pollen morphology is so well known to-day, in one of the established plant families. It therefore seems justified to regard it as the type of a family of its own within the *Geraniales-Sapindales-Celastrales*. Suggested already by van Tieghem (1897) and Pierre (1897) casually as '*Lophopyxidacées*', the family was formally described by Pfeiffer (1951) who raised Engler's *Lophopyxidoideae* to family rank, and recently conceived by Airy Shaw (1966).

Full descriptions will be given in the Flora Malesiana treatment of the family.

LOPHOPYXIDACEAE

(Engl.) Pfeiffer, Rev. Sudam. Botan. 10 (1951) 4; Airy Shaw in Willis, Dict. 7th ed. (1966) 668. — *Icacinaceae* subfam. *Lophopyxidoideae* Engl. in E.-P., Nat. Pfl. Fam. III, 5 (1893) 257.

## LOPHOPYXIS

Hook. f., Ic. Pl. 18 (1887) t. 1714; Fl. Br. Ind. 5 (1888) 476; Boerl., Handl. 1, 2 (1890) 673; Pax in E.-P., Pfl. Fam. III, 5 (1890) 117; Engl., ibid. (1893) 238, 257; van Tiegh., Bull. Soc. Bot. Fr. 44 (Feb. 1897) 115; Pierre, Bull. Soc. Linn. Paris (June 1897) 1316, in text; Hall. f., Med. Rijksherb. 1 (1910) 9; Gilg. Bot. Jahrb. 55 (1918) 278; Hall. f., Beih. Bot. Centralbl. 39, ii (1921) 64, nota, 161; Ridl., Fl. Mal. Pen. 1 (1922) 435; Schellenb., Bot. Jahrb. 58 (1923) 177; Pfeiffer in Linsbauer, Handb. Pflanzenanat. 9 (1926) 54, 111 (Anat.); Festschr. Schauinsland (1927) 41 (Anat.); Kaneh., Bot. Mag. Tokyo 45 (1931) 293; Pax & Hoffm. in E.-P., Nat. Pfl. Fam. 2nd ed. 19c (1931) 232; Handa, Bot. Mag. Tokyo 54 (1940) 41—47, f. 1—6 (Wood anat.); Sleum. in E.-P., Nat. Pfl. Fam. 2nd ed. 20b (1942) 392—396, f. 117 & 118; Pfeiffer, Rev. Sudam. Bot. 10 (1951) 3—6; Dahl, J. Arn. Arb. 36 (1955) 160—161 (Pollen); Hutch., Fam. Fl. Pl. Dic. (1959) 320; Scholz, in Syll. Pflfam. ed. 12 (1964) 294; Airy Shaw in Willis, Dict. 7th ed. (1966) 668; Bakh. v. d. Br. & van Steenis, Fl. Males. Bull. 21 (1966) 1426; Erdtman, Pollen Morph. & Pl. Taxon. (1966) 169. — *Combretopsis* K. Schum. in K. Sch. & Hollr., Fl. Kais. Wilh. Land (1889) 69. — *Treubia* Pierre ex Boerl., Handl. 1, 2 (1890) 445.

1. *Lophopyxis maingayi* Hook. f., Ic. Pl. 18 (1887) t. 1714; Fl. Br. Ind. 5 (1888) 673; Pax in E.-P., Nat. Pfl. Fam. III, 5 (1890) 117; Engl., ibid. (1893) 238, 257; Hall. f., Med. Rijksherb. 1 (1910) 9; Ridl., Fl. Mal. Pen. 1 (1922) 435; Sloot., Bull. Jard. Bot. Btzg III, 7 (1925) 364; Holth. & H. J. Lam, Blumea 5 (1942) 205; Sleum. in E.-P., Nat. Pfl. Fam. 2nd ed. 20b (1942) 393; Fl. Males. I, 5 (1954) 63, *sub Homalium spec. excl.* — *Combretopsis pentaptera* K. Schum. in K. Sch. & Hollr., Fl. Kais. Wilh. Land (1889) 69. — *Treubia combretocarpa* Pierre ex Boerl., Handl. 1, 2 (1890) 445. — *L. pierrei* Boerl., ibid. 673, *nom. ill.*, based on *Treubia combretocarpa*; Heyne, Nutt. Pl. 1 (1950) 987. — *L. schumannii* Boerl., Handl. 1, 2 (1890) 674, *nom. ill.*, based on *Combretopsis pentaptera*. — *L. combretocarpa* (Pierre ex Boerl.) Engl. in E.-P., Nat. Pfl. Fam. III, 5 (1893) 257. — *L. pentaptera* (K. Schum.) Engl., Sitz. Ber. Kön. Preuss. Ak. Wiss. (1893) 265, t. 2, f. 6 & 7; in E.-P., Nat. Pfl. Fam. III, 5 (1893) 257; K. Schum., Notizbl. Berl.-Dahl. 2 (1898) 130; K. Sch. & Laut., Fl. Schutzgeb. (1900) 418; Reching., Bot. Erg. Wiss. Reise Salomon Ins., in Denkschr. K. Ak. Wiss. Wien 89 (1913) 129; Gilg, Bot. Jahrb. 55 (1918) 278; Schellenb., ibid. 58 (1923) 177; Kaneh., Bot. Mag. Tokyo 45 (1931) 293; Fischer, Kew Bull. (1932) 178; Kaneh., Fl. Micron. (1933) 197 (japon.), f. 84; J. Dep. Agr. Kyushu Imp. Un. 4 (1935) 358; Kaneh. & Hatus., Bot. Mag. Tokyo 52 (1938) 413, f. 2; Handa, ibid. 54 (1940) 41—47, f. 1—6 (Wood anat.); Sleum. in E.-P., Nat. Pfl. Fam. 2nd ed. 20b (1942) 393, f. 117 (Habit) & 118 (Wood anat.); Mauritzon in Sleum., ibid. 395 (Embryol.); Dahl, J. Arn. Arb. 36 (1955) 160, 161, f. 2 & 2A (Pollen). — *Homalium gilgianum* Laut. in K. Sch. & Laut., Nachtr. (1905) 320; Pulle, Nova Guinea 8 (1912) 672; Sloot., Bijdr. Combret. & Flacourt. Ned. Ind. (1919) 117, 166; Nova Guinea 14 (1926) 194.

MALAY PENINSULA. Penang: 100—300 m, *King's Coll.* 4980 (BM, G, L, UPS). — Perak: Sg. Tukang, SF 14332 (K). Larut, 60—150 m, *King's Coll.* 4157 (G), 6552 (BM, L). Ulu Kerling, 120—200 m, *King's Coll.* 8683 (BO, K, UPS). Sg. Krian Estate, sealevel, SF 34597. — Trengganu: Baloh China, Sg. Nerus, SF 40916. — Selangor: Bukit Kutu, *Goodenough* (Herb. Ridley 10539) (K). Bukit Tiga, *Ridley* 12052 (K). — Malacca, *Maingay* Herb. 2962 = *K.D.* 1429 (K, type of *L. maingayi*; L).

CELEBES. Western Central Celebes: Cape Lowo-Lowo, *Rachmat* (*Exp. van Vuuren*) 788 (BO, L). — Northern Celebes: Minahassa, Belang, -10-1840, *Forsten* 327 (L).

BORNEO. North Borneo: 'Eastcoast' (possibly Sandakan area), *Creagh s.n.* (K). Kujala Koshon, *B.N.B. For. Dep.* 1326 *Arsat* (K). Tanjung Bulet, *B.N.B. For. Dep.* 1294 *Arsat* (K). Elopura, Segaliud R., *B.N.B.*

*For. Dep. A 1046* (KEP). Kinabatangan, Latangon, SAN 31099; Sg. Pin, B.N.B. *For. Dep. 1339* Arsat (K); Batu Puteh, B.N.B. *For. Dep. 2996* Burut (K, L), 3405 Ibrahim (BO, K). Tawau, entrance to Hot Spring above the Hill, 15 m, SAN 43731 (SAN).

MOLUCCAS. Ceram: *de Vriese & Teysmann* (L, type of *Treubia lombretocarpa*), *Teymann HB 5054* (BO, L). W. Ceram, 0—50 m, *Rutten 1845* (BO); Kairatu, 5 m, *Kuswata & Soepadmo 153* (BO). NW. Ceram, 30 m, *Rutten 1773* (BO, L). — Sula Is: Sula Mangoli, 30 m, *Bloembergen 4663* (BO, K, L). — Talaud Is: Karakelang, 20 m, *Lam 3014* (BO, K, L). — Amboina: *Robinson 1725 & 1775* (BO, K, L). Suli, *Boerlage 205* (BO). Hila, *Rumphius*, cit. *Herb. Amboin. 5* (1747) 73, t. 39, f. 1; *ibid.*, *Treub a. 1893* (BO).

NEW GUINEA. Vogelkop Peninsula: Sorong (= Ramoi), sealevel, *Beccari P.P. 268* (Fl, L), *Pleyte 442*. — South New Guinea: Lorentz (= Noord) R., *Versteeg 1808* (BO, K, L). — Western Div.: Lower Fly R., east bank opp. Stuart I., *Brass 8114* (K). — Sepik Dist.: *Ledermann 6524* (K). Torricelli Mts, 100 m, *Schlechter 14565* (BO). — Madang Dist.: Gogol R., *Lauterbach 1167* (WRSL). Bulu near Madang, *Schlechter 16038* (G, K, S). Konstantinhafen, N. of Bagili camp, *Hollrung 605* (B, †, type of *Combretopsis pentaptera*; K, L). — Morobe Dist.: Salamaua, *Kanehira & Hatusima 4026* (FU, cit. K. & H., n.v.). Huon Gulf, Cape Arcona, *Lauterbach 653* (WRSL), 667 (B, †); Singaua, coastline, *Hartley 11605*.

NEW BRITAIN. Gazelle Peninsula: Baining Mts, *Rechinger 3677 & 4172* (W). Ralum near Herbertshöhe (= Rabaul), *Dahl a. 1897* (B, †). Keravat area, 60—120 m, *NGF 3439, 6629*. — Nakanai: Cape Hoskins, *NGF 6483, 6516*. — Gasmata: Awul, sealevel, *NGF 24150*. — Kandrian: *Nicholson 1554* (K), *NGF 23932*. Pulie R., 30 m, *NGF 27213*. Fullerborn Harbour, 30 m, *NGF 21730*.

NEW IRELAND. Namatanai, Lamekot, Ujana, *Peekel* (Fl. Bismarck-Arch., MS, 7, p. 1083 & plate). Duke of York I. (= Neu Lauenburg), Rakanda, *Peekel* *ibid.* 1084.

SOLOMON IS. Bougainville: *Waterhouse 407-B* (K, L), *Voyce E 8* (K, L). Kieta, *Rechinger 4011 & 4647* (W). Luluai R., *NGF 16342*. Buin, 0—15 m, *Kajewski 2269* (BO, G), *Schodde (& Craven) 4063* (L). — Rob Roy I. SE. of Choiseul, 30 m, *BSIP 5310*. — New Georgia group: New Georgia, 15 m, *BSIP 3705*. Baga I., *BSIP 3067*. Kolombangara I., *BSIP 860, 1516*. — Santa Isabel: *BSIP 2757, 6683*. — Malaita: *Kajewski 2329* (BO, G). — Guadalcanal: *BSIP 2565, 2566*; Honiara Dist., 15 m, *McKee 1647*.

PALAU IS. Korror, *Kanehira 124* (FU, cit. Kan., n.v.). Aimiriik, *Kanehira 315 & 2348* (FU, cit. Kan., n.v.). Aimiyon, *Kanehira 468* (FU, cit. Kan., n.v.).