

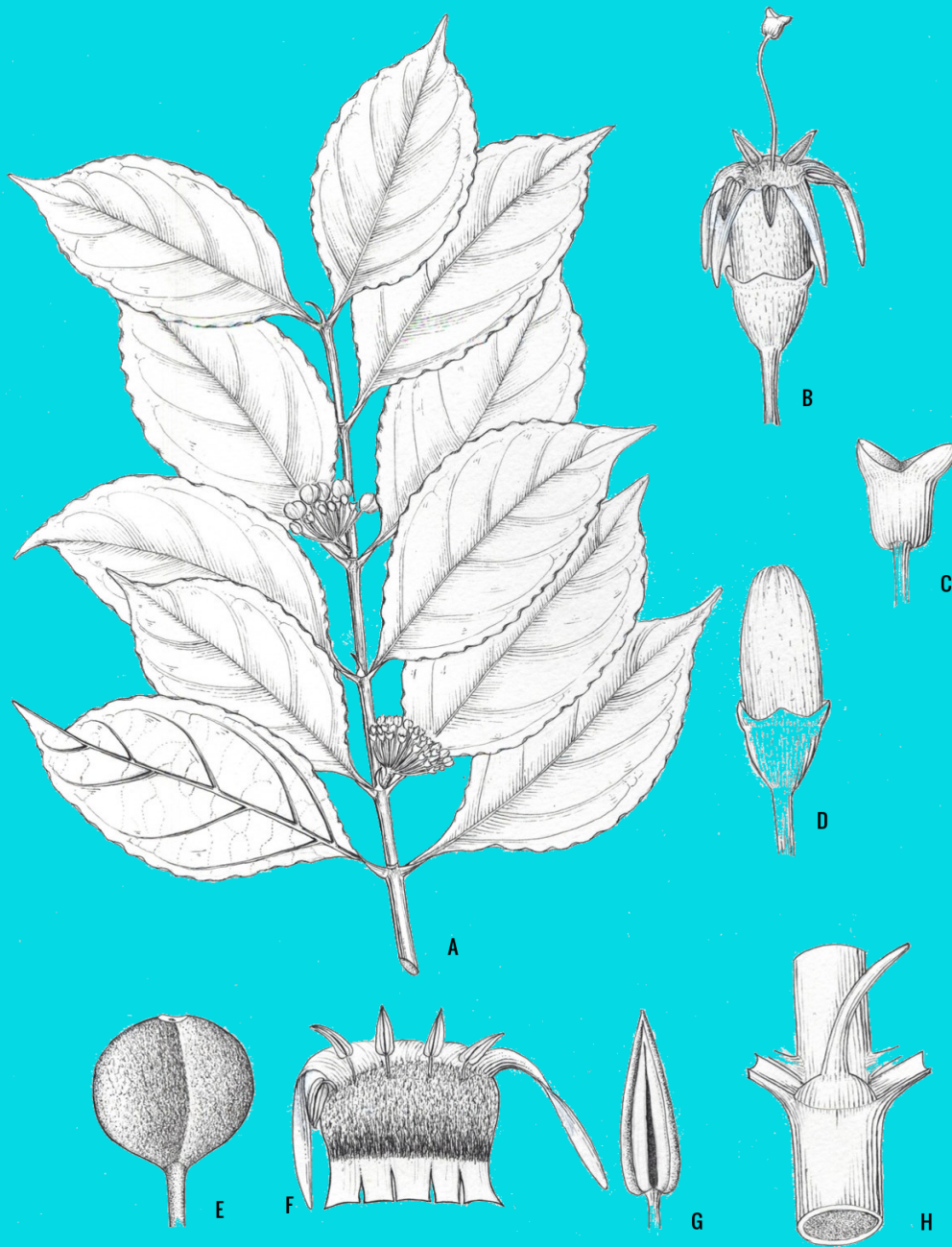


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Cover images: *Psydrax undulatifolius* K.M.Wong & Mahyuni *spec.nov.*, A. Habit; B. Flower; C. Stigma; D. Flower bud; E. Young fruit; F. Corolla cut open to reveal inside; G. Anther; H. Stipule. A, E, H from *H.N. Ridley 6475* (SING); B, C, D, F, G from *D.B. Arnot 30665* (KEP), drawing by Anne Kusumawaty (BO).

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## FLORA OF SINGAPORE PRECURSORS, 2. A NEW SPECIES AND TWO NEW COMBINATIONS IN *PSYDRAX* (RUBIACEAE: VANGUERIEAE) FOR WEST MALESIA

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### ABSTRACT

WONG, K. M. & MAHYUNI, R. 2018. Flora of Singapore Precursors, 2. A new species and two new combinations in *Psydrax* (Rubiaceae: Vanguerieae) for West Malesia. *Reinwardtia* 17(1): 77–84. — Studies in *Psydrax* Gaertn. for the Flora of Singapore and the Malesian floristic region have revealed that three taxa required the description of a new species and two new combinations. *Psydrax undulatifolius* K.M.Wong & Mahyuni is newly described as a species thus far recorded only for the Malay Peninsula, whereas *Psydrax approximatus* (Korth.) Mahyuni & K.M.Wong and *Psydrax lucidulus* (Miq.) Mahyuni & K.M.Wong are newly combined from *Canthium approximatum* Korth. and *Vangueria lucidula* Miq., both distributed in Sumatra, the Malay Peninsula and Borneo.

**Key words:** Borneo, *Canthium*, Flora of Singapore, Peninsular Malaysia, Sabah, Sarawak, Sumatra.

### ABSTRAK

WONG, K. M. & MAHYUNI, R. 2018. Prekursor Flora Singapura, 2. Satu jenis baru dan dua kombinasi baru dari *Psydrax* (Rubiaceae: Vanguerieae) untuk kawasan Malesia Barat. *Reinwardtia* 17(1): 77–84. Studi *Psydrax* Gaertn. untuk flora Singapura dan wilayah floristik Malesia mengungkapkan tiga taksa yang perlu dideskripsikan sebagai jenis baru dan dua kombinasi baru. *Psydrax undulatifolius* K.M.Wong & Mahyuni merupakan jenis yang baru dideskripsi yang selama ini tercatat hanya dari Semenanjung Malaya, sedangkan *Psydrax approximatus* (Korth.) Mahyuni & K.M.Wong dan *Psydrax lucidulus* (Miq.) Mahyuni & K.M.Wong sebagai kombinasi baru dari *Canthium approximatum* Korth. dan *Vangueria lucidula* Miq., keduanya tersebar di Sumatera, Semenanjung Malaya dan Borneo.

**Kata kunci:** Borneo, *Canthium*, Flora Singapura, Sabah, Sarawak, Semenanjung Malaya, Sumatera.

### INTRODUCTION

*Psydrax* Gaertn. is a genus of unarmed trees, shrubs or rarely lianas (the last not in Southeast Asia), which typically have stipules with a prolonged keeled cusp or slightly broadened apical lobe, (4-)5-merous flowers in sessile to pedunculate, axillary umbellate to clearly branched cymes (Bridson, 1985; Wong, 1988; 1989; Mahyuni *et al.*, 2018). The calyx has a subtruncate or lobed limb; the subcylindric to infundibular corolla tube is typically pubescent at or below the throat, and inside typically has a ring of deflexed hairs, and the corolla lobes are valvate and reflexed. The anthers are inserted on filaments of similar length and are always strongly reflexed and completely exerted from the corolla. The stigma is 2-lobed and its base is characteristically and conspicuously recessed ('mitriform'), and clearly exerted on a long style. The two ovary locules each has a solitary ovule. The fruits are drupaceous but frequently 2-lobed, containing two somewhat

plano-convex, sub-ellipsoid to obovoid and often markedly rugulose pyrenes (Bridson, 1985; Wong 1988 & 1989). We estimate that there are perhaps 100 species, distributed in tropical Africa (including Madagascar), Asia, Australasia and the Pacific. Some 14 species have been documented for the Malay Peninsula (Wong, 1988; 1989), but similar accounts in floristic studies of other Southeast Asian territories have yet to be published.

The taxonomic history of the genus has been somewhat complex. Prior to the work of Bridson (1985) and Wong (1988; 1989), the Malay Peninsula species were mostly placed in *Canthium s.l.*, often misidentified as '*Canthium didymum*' (*non* Gaertn.) and '*C. dicoccum*' (*non* (Gaertn.) Merr.) (see Bridson, 1985; Mahyuni *et al.*, 2018). This was so in Craib (1932) for Peninsular Thailand, and Hooker (1882), King & Gamble (1904) and Ridley (1923) for the Malay Peninsula. Regionally, Backer & Bakhuizen (1963) and Merrill (1921) also used *Canthium s.l.* for Java and the Philippines, respectively. More

recently, Keng (1990) still maintained the wider concept of *Canthium* for Singapore. Outside Southeast Asia, only the recent works by Ridsdale (1998) for the *Flora of Ceylon*, and Chen *et al.* (2011) for the *Flora of China*, have modern treatments of *Psydrax* in their accounts.

In fact, there are some good morphological distinctions between these two genera. In contrast to *Psydrax*, *Canthium* Lam. *s.s.* can be distinguished by its mostly scrambling and climbing habit, axillary spines, and flowers that are solitary, fasciculate or in cymes (Bridson, 1985). The flowers or inflorescences are characteristically borne in the axils of leaves on normal shoots (developing elongate internodes), as well as in the axils of both normal leaves and scale- or bract-like reduced leaves found on axillary short-shoots ('brachyblasts', with internodes condensed into a very short axis) (Wong, 1988; 1989). *Psydrax* includes typically arborescent and unarmed species, and its flowers are never solitary; besides, short-shoot development is not known in *Psydrax*. In the combined analysis using molecular (ITS and *trnT-F* sequences) and 30 morphological characters by Lantz & Bremer (2004), a 'spiny group' including *Canthium s.s.* and a few other taxa was distinguished clearly from genera such as *Psydrax* Gaertn., *Cyclophyllum* Hook.f. and other genera in the *Canthium* alliance.

The Malay Peninsula account of *Psydrax* in Wong (1988 & 1989) had relied heavily on material from the K, KEP and SING herbaria but, because the taxa were not checked against material of the wider Malesian region, only two species (*Psydrax maingayi* (Hook.f.) Bridson and *Psydrax nitidum* (Craib) K.M.Wong) were named and another 12 were merely referred to as numbered taxa. The same approach of merely sorting into numbered taxa was also adopted in the listing of Brunei plants (Coode *et al.*, 1996) for lack of more conclusive region-wide taxonomic studies. It was only recently that one of us has undertaken the wider revision necessary for Malesian *Psydrax* (RM), in association with an ongoing review of morphological evidence towards possible generic assignments in the broader *Canthium s.l.* (KMW). This would supplement insights from molecular phylogenetic work (Lantz & Bremer, 2004; Razafimandimbison *et al.*, 2009) that, while clarifying other areas of the complex, have thus far had limited application for classifying a remaining core of Southeast Asian taxa. Our work has resulted in an elucidation of the *Psydrax dicoccos* complex in Malesia (Mahyuni *et al.*, 2018) as well as the present contribution. In this paper, we provide the identity of three species in preparation for the impending publication of the *Flora of Singapore*. A fourth species that also occurs in Singapore, *Psydrax*

*sumatranus* (Miq.) Mahyuni, is treated with the *Psydrax dicoccos* complex (Mahyuni *et al.*, 2018).

## MATERIALS AND METHODS

The study was carried out using conventional approaches for herbarium taxonomic studies. Specimens at the BO, BRUN, K, KEP, L, SAN, SAR, and SING herbaria (acronyms follow Thiers continuously updated) were examined. The key morphological attributes of both vegetative and reproductive (including inflorescence, flower and fruit) parts were compared. In addition, JSTOR images of type specimens and specimen catalogues at BM, K, L and SING were also checked.

Nomenclatural considerations follow the International Code of Nomenclature (McNeill *et al.*, 2012). Following the initial authority Gaertner (1788), we treat the genus as masculine (Mahyuni *et al.*, 2018), although some others before the present work have tended to use epithet terminations that reflect a feminine gender.

All conservation assessments follow the methodology of IUCN (2012).

## THE NEW SPECIES AND NEW COMBINATIONS

1. ***Psydrax undulatifolius*** K.M.Wong & Mahyuni, *spec. nov.* — Type: Malay Peninsula, Johor, Sungei Ban, 1894, *H.N. Ridley 6475* (holotype SING! [SING0189442]). Figs. 1&2.

Diagnosis. The new species *Psydrax undulatifolius* is superficially similar to *Psydrax sumatranus* (Miq.) Mahyuni, but differs in having leaves with the upper surface drying glossy and consistently wavy or undulate margins, as well as corolla lobes that are longer than the tube. In contrast, *Psydrax sumatranus* has leaves with upper surface drying matt, plane or only very remotely undulate margins even when dry, and the corolla lobes are shorter than to equalling the tube.

*Psydrax* sp. 1. Wong, Arbor. Rubiaceae Malaya (1988) 180; Wong, Tree Fl. Malaya 4 (1989) 402.

Small tree to 20 m tall, bark smooth becoming fissured. *Stipules* with a broad triangular base 1–1.5 mm long and keeled apical cusp 2–3.5 mm long. *Leaves* elliptic, (2.5–)7–10(–13) × (1–)2.3–4(–5.5) cm, apex cuspidate to apiculate, to *ca.* 1.2 cm long, base cuneate, margin conspicuously wavy or corrugate, secondary veins 3–4(–6) pairs, midrib and secondary veins raised on both surfaces, tertiary veins inconspicuous, subcoriaceous, upper surface glossy in dried material; petioles 3–8(–12) mm long. *Inflorescences* with

peduncle 1–2 mm long, densely scabrid, very compact and visibly branched to 1(-2) orders only, main branches 1–1.5 mm long, densely scabrid. *Flowers* with pedicels (1.5–)5–8 mm long, densely scabrid; calyx and hypanthium 1–1.5 mm long, including 5 lobes *ca.* 0.2–0.3 mm long, sparsely to densely hairy all over; corolla tube 1.5–2 mm long, lobes 2–2.5 mm long, both scattered suberect pale-hairy on the outer surfaces, the lobes with fine indumentum over the inner surface; filaments *ca.* 1 mm long, anthers 1–1.5 mm long; style exerted for *ca.* 3 mm from the corolla throat, stigma 0.5–0.8 mm long. *Fruits* obovoid to subglobose, not conspicuously bilobed, 5–7 × 5–8 mm; pedicels 6–10 mm long. *Pyrenes* rugose.

**Distribution.** Only known from the Malay Peninsula. In Peninsular Malaysia it has been documented for Penang, Kedah, Perak, Kelantan, Terengganu, Pahang and Johor states; in Singapore it is known only by two collections so far.

**Other specimens examined. Malay Peninsula.**

**Malaysia.** Kedah: Gunong Jerai, 3 Mar 1957, *K.M. Kochummen* KEP 85076 (KEP [KEP208426]). Kelantan: Ulu Kelantan, Gunung Rabong, 2000 ft, 11 Mar 1972, *T.C. Whitmore* FRI 20606 (KEP, SING [SING0189342]), 2500–3300 ft, 12 Mar 1972, *Mohd. Shah* MS 2512 (KEP [KEP181919], SING [SING0189441]). Pahang: Cheraga, Sg. Telom, 1000 ft, 26 May 1971, *Zainudin b. Sohadi* FRI 14734 (KEP [KEP181909]), 1200 ft, 26 May 1971, *T.C. Whitmore* FRI 20030 (SING [SING0189334]); Kuala Lompat, Lata Tujuh, 2500 ft, 24 Apr 1978, *Y.C. Chan* FRI 25125 (KEP [KEP181911], SING [SING0189344]). Penang: Balik Pulau, Jun 1898, *H.N. Ridley* 9421 (SING [SING0189443]); Penara Bukit, Apr 1901, *C. Curtis* s.n. (SING [SING0189246]). Perak: Bubu FR, 5 Apr 1933, *D.B. Arnot*, 30665 (KEP [KEP181912]); Kledang Saiong, 4 Mar 1931, *Symington* KEP 25637 (KEP [KEP181918]); Kledang Saiong FR, 3 Apr 1934, *D.B. Arnot* KEP 33690 (KEP [KEP181915]). Trengganu: Dungun, Bt. Bauk FR, 15 May 1976, *Y.C. Chan* FRI 25068 (KEP, SING [SING0189393]). **Singapore.** Bukit Timah NR, 15 Apr 1970, *R.D. Hill* H.314 (SING); Sungei Hantu opposite Pulau Serimbun, 28 Mar 1953, *J. Sinclair* SFN 39530 (SING [SING0239956]).

**Etymology.** The Latin *undulatus* means wavy, *-folius* refers to the leaves; the wavy or regularly undulate leaf margins are typical of this species.

**Provisional conservation assessment.** Because of its restricted distribution in the Malay Peninsula and continuing logging disturbance at a number of its known provenances, this species would be globally categorised as Vulnerable (VU).

**Note.** *J. Sinclair* SFN 39530 (= *Psydrax undulatifolius* here) was the basis for including *Psydrax maingayi* (Hook.f.) Bridson in the flora of Singapore (Keng, 1990), a misidentification. *Psydrax maingayi* does not occur in Singapore.

2. ***Psydrax approximatus*** (Korth.) Mahyuni & K.M.Wong, *comb. nov.* Basionym: *Canthium approximatum* Korth., Ned. Kruidk. Arch. 2, 2 (1851) 234. *Plectronia approximata* (Korth.) Merr., J. Straits Br. Roy. Asiat. Soc., Spec. No. (1921) 566. — Type: Borneo, Banjarmassing, no date, *P.W. Korthals* s.n. (holotype L! [L0000146]).

*Psydrax* sp. 11. Wong, Arbor. Rubiaceae Malaya (1988) 185; Wong, Tree Fl. Malaya 4 (1989) 402 (*in clavi*).

*Psydrax* sp. 4. Coode *et al.*, Checkl. Flow. Pl. Gymn. Brunei (1996) 263.

Small tree to 15 m tall; bark smooth to fissured. *Stipules* with a broad triangular base 1–2 mm long and keeled apical cusp 1–2.5(-6) mm long. *Leaves* ovate to elliptic, 5–8.5(-10) × 3.5–5.5 cm, apex apiculate, to *ca.* 1.5 cm long, base cuneate, margin plane to very remotely undulate, secondary veins 4-5 pairs, midrib and secondary veins raised on both surfaces, tertiary veins inconspicuous, subcoriaceous, upper surface matt in dried material; petioles (4-)7–13 mm long. *Inflorescences* with peduncle 2–2.5 mm long, densely scabrid, visibly branched to 3(-4) orders, main branches 3–5 mm long, densely scabrid. *Flowers* with pedicels 2–3.5 mm long, densely scabrid; calyx and hypanthium *ca.* 1 mm long, including 5 lobes *ca.* 0.1–0.2 mm long, densely hairy all over; corolla tube 2–2.5(-3) mm long, lobes 1.5–2.5 mm long, both outer and inner surfaces densely minute-hairy becoming glabrescent, throat with erect hairs partly exerted; filaments 0.5–1.5 mm long, anthers 1.5–2 mm long, the whole reflexed and exerted; style exerted for 3–5 mm from corolla throat, stigma 0.8–1 mm long. *Fruits* compressed obovoid, typically bilobed, 7–10 × 3–8 mm; pedicels 4–10 mm long. *Pyrenes* rugose.

**Distribution.** Sumatra, Malay Peninsula (Pahang and Johore in Peninsular Malaysia; Singapore) and Borneo. This is a species of freshwater and mangrove swamps, occurring also in peat swamps and brackish water vegetation.

**Other specimens examined. Bangka (Indonesia).** Sungai Liat, no date, *Teymann* 18730 (BO). **Borneo. Brunei Darussalam.** Brunei -Muara: Brunei river, Rangau area, 21 Jan 1959,

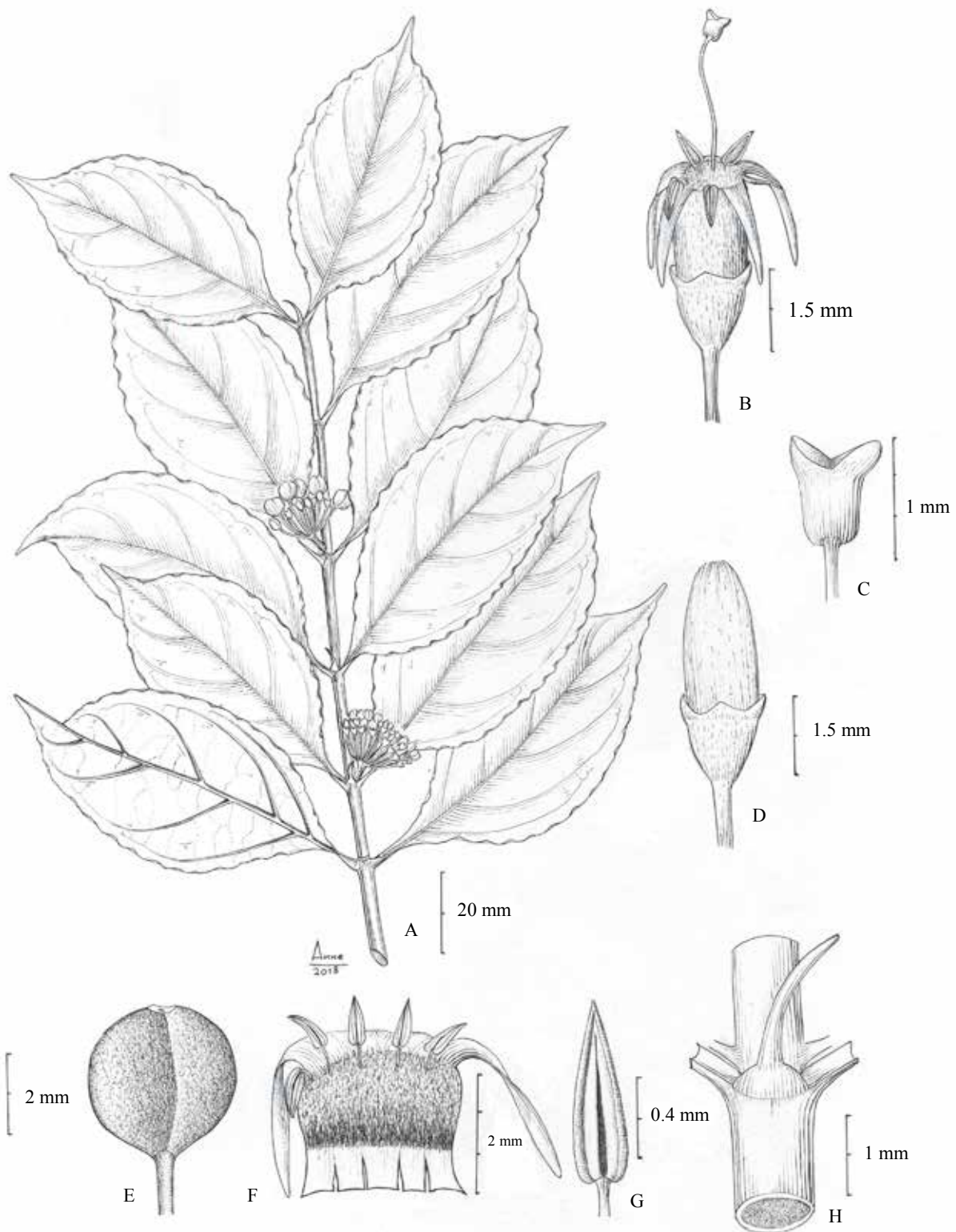


Fig. 1. *Psydrax undulatifolius* K.M.Wong & Mahyuni *spec.nov.*, A. Habit; B. Flower; C. Stigma; D. Flower bud; E. Young fruit; F. Corolla cut open to reveal inside; G. Anther; H. Stipule. A, E, H from *H.N. Ridley* 6475 (SING); B, C, D, F, G from *D.B. Arnot* 30665 (KEP), drawing by Anne Kusumawaty (BO).





Fig. 2. *Psydrax undulatifolius* K.M.Wong & Mahyuni, *spec. nov.* From H.N. Ridley 6475 (SING).

*P.S. Ashton BRUN 5123* (BO, KEP); Sungai Rangau, 20 Sep 1990, *C. Puff et al. 900828-2/1* (SING). Temburong: no specific locality, 30 Jan 1956, *J.A.R. Anderson S.2184* (BO). Tutong: Pekan Tutong, Kampung Serambangan, 4°47'N, 114°38'E, 11 Dec 1993, *I.M. Said BRUN 15951* (SING). **Sabah** (Malaysia). Beaufort, 30 Mar 1962, *G. Mikil SAN 34589* (KEP). Membakut, Hutan Taman Rekreasi Pantai Pimping, 11 Aug 1976, *T. Bidin SAN 84358* (SING), 27 Jan 1991, *Ag. Amin SAN 126137* (KEP, SAN). Papar, 28 Apr 1976, *Talib & Heoya SAN 80547* (SAN). Sipitang, 27 Apr 1971, *Saikeh Lantoh SAN 73176* (SING), Sipitang, 1.5 miles from mouth of Lukutan river, 2 Aug 1954, *G.H.S. Wood & J. Wyatt-Smith A 4587* (SING), 3 Dec 1969, *Aban Gibot SAN 66634* (SAN), 28 Jun 1971, *K. Ahmad SAN 73149* (KEP), Sipitang, Kawasan Pantai Merintaman, 18 Apr 1987, *Ag. Amin SAN 103412* (SAN), 22 Sep 1987, *Ag. Amin SAN 115085* (BO, SAN). Teluk Brunei, 10 Mar 1986, *Awang Amir SAN 103071* (SING). Weston, 15 Dec 1992, *Ag. Amin SAN 132001* (KEP, L, SAN). **Sarawak** (Malaysia). Sarawak, no locality, 1892, *G.D. Haviland s.n.* (SING). Bintulu: Sungai Segan, four miles south of Bintulu, Oct 1963, *J.A.R. Anderson S.18572* (SING). **Malay Peninsula**. **Malaysia**. Johor: 1 May 1932, *E.J.H. Corner SFN 25852* (SING), 14 Feb 1937, *E.J.H. Corner SFN 32258* (SING). Pahang: Temerloh, Mangrove Reserve, 14 Oct 1921, *V.P. Borges FMS (=KEP) 5652* (KEP). **Singapore**. Pandan Reserve, 22 May 1939, *Corner & Henderson SFN 36427* (BO, KEP, SING [SING0189533]); Serangoon Road, 1905, *H.N. Ridley s.n.* (SING [SING0030587]); Pulau Ubin, 9 Jun 2003, *I. Ali et al. GW 21* (SING [SING0045689]), Nov 2011, *I. Ali & J. Lai SING 2011-478* (SING [SING0182032 & 0182033]); Pulau Tekong, 6 Oct 2011, *K.S. Koh SING 2011-394* (SING [SING0166313]). **Sumatra** (Indonesia). Batu Bara, *H.S. Yates 2360* (BO); Riau, P. Padang, *Brunier s.n.* (BO).

**Etymology.** The Latin *approximatus* means "close to", its originally inferred affinity to *Canthium*.

**Provisional conservation assessment.** Although this species was naturally widespread, probably more than half the extent of the habitats in which it occurs has been prone to disturbance and land-use transformation. Globally it should be Vulnerable (VU) on account of a significant reduction in extent of occurrence.

**Notes.** The inflorescences are commonly susceptible to witches' broom; when galled, they are more copiously branched, the ultimate branches bearing multiple bracts arranged in clusters or whorls but no flowers.

3. ***Psydrax lucidulus*** (Miq.) Mahyuni & K.M.Wong, *comb. nov.* Basionym: *Vangueria lucidula* Miq., Fl. Ned. Ind. Eerste Bijv. 3 (1861) 544. *Canthium lucidulum* (Miq.) Miq., Ann. Mus. Bot. Lugduno-Batavi (1869) 254. — Type: Sumatra, Palembang, Muara Enim, Gunung Megang, no date, *J. Teysmann 4000* (holotype BO! [B0-1321867]).

*Psydrax* sp. 10. Wong, Arbor. Rubiaceae Malaya (1988) 185; Wong, Tree Fl. Malaya 4 (1989) 404.

Small to medium tree to 28 m tall, developing buttresses to 1.5 m high; bark smooth to slightly flaky or fissured. *Stipules* with a broad triangular base 2.5–4 mm long and keeled apical cusp 1–2 mm long. *Leaves* ovate to elliptic, 3.4–8.1(–10.5) × 1.2–2.6(–4.7) cm, apex apiculate with blunt tip, to 0.4–1 cm long, base cuneate to obtuse, margin plane, secondary veins 5–6 pairs, midrib flat on upper surface, raised on lower surface, secondary veins flat to slightly raised on upper surface, raised on lower surface, tertiary veins inconspicuous, chartaceous, upper surface slightly glossy in dried material; petioles 3–6(–10) mm long. *Inflorescences* with peduncle 2–4(–5) mm long, sparsely scabrid to glabrescent, compact and visibly branched to 1(–2) orders only, main branches 1.5–2.5 mm long, sparsely scabrid to glabrescent. *Flowers* with pedicels 2–3 mm long, sparsely scabrid to glabrescent; calyx and hypanthium 1–1.5 mm long, including 5 triangular lobes 0.1–0.2 mm long, sparsely hairy to glabrescent all over; corolla tube *ca.* 1 mm long, lobes *ca.* 1.5 mm long, both outer and inner surfaces densely minute-hairy becoming glabrescent, throat with dense exerted erect hairs; filaments *ca.* 0.5 mm long, anthers *ca.* 1.5 mm long, the whole reflexed and exerted; style exerted for 2.5–3 mm from corolla throat, stigma *ca.* 1 mm long. *Fruits* compressed obovoid, typically bilobed, 8–12 × 5–9 mm; pedicels 7–10 mm long. *Pyrenes* rugose.

**Distribution.** Sumatra, Malay Peninsula (most west coast states as well as Johor and Kelantan in Peninsular Malaysia; Singapore) and Borneo. Lowland forest.

**Other specimens examined.** **Bangka** (Indonesia). 11 Oct 1949, *Kostermans & Anta 1126* (BO), 12 Oct 1949, *Kostermans 208* (bb. 34172) (L), 30 Aug 1928, *Muhammad Oeloeri 334* (bb. 12.723) (BO); **Borneo**. **Brunei Darussalam**. Tutong: Ulu Tutong, 9 May 1992, *R.J. Johns 7590* (SING). **Kalimantan** (Indonesia). Kutai, Rantau Bahan, 7 Mar 1931, *Abdul Hamid 26* (bb. 1445) (BO). East Borneo, M. Ilas, Mapulu 23 Nov 1857, *A. Kostermans 14019* (SING). Sampit, 8 Jun 1926, *Boschproefstation bb. 9914* (BO). **Malay Peninsula**. **Malaysia**. Johor: Ulu

Endau, Kluang, 18 Nov 1922, *R.E. Holttum SFN 9433* (BO); Labis FR comp. 280, 30 Mar 1968, *K. Ogata KEP 110441* (KEP, SING). Kedah: Langkawi, Apr 1911, *H.N. Ridley 15819* (SING), 8 Jul 1938, *S.F.O. Kedah KEP 31331* (KEP). Kelantan: Kuala Terengganu, *P.F. Cockburn KEP 115975* (SING). Melaka: no locality, *V.M. Alvins 49* (KEP); Bukit Bruang FR, 23 Mar 1938, *Hj. Mahpol 25312* (KEP). Negeri Sembilan: Pasir Putih, 29 Apr 1919, *M. Usope, C.F. 855* (SING). Perak: Gopeng, *B. Scortechini 176* (SING); Ipoh, Kinta, Chior F.R., 27 Jan 1954, (*collector name unclear*) *KEP 51260* (KEP). Selangor: Gombak, Dec 1908, *Ridley 157* (KEP); Ulu Gombak, 15 May 1962, *K.M. Kochummen KEP 94607* (KEP); Kuala Lumpur, Bukit Lagong FR, 11 May 1947, *Ali & Sow KEP 52115* (KEP). **Singapore**. Seletar Forest, 17 Nov 1994, *Nura A. Karim et al. NK 180* (SING). **Sumatra (Indonesia)**. Jambi: Menara Pidjoen, 26 Dec 1928, *Mohd. Alfiah 84* (BO). North Sumatra: Perbangungan, no date, *Nalang 89* (BO). Palembang: Banyuasin, April 1920, *F.H. Ender 164* (BO, L), 6 Dec 1922, *C.J.V.D. Iwaan, Boschproefstation T. 943* (BO, L), 16 Dec 1922, *C.J.V.D. Iwaan 3P846* (BO); Lematang Hilir, 14 Jan 1922, *Boschproefstation T. 846* (BO, L), 1 Jul 1940, *C. Verstegh & T. Noerkamal 254* (BO); Lematang Oeloe, 1917, *P.M. Laubach 1286* (BO). Simeloe, 14 May 1919, *Achmad 1112* (BO), 15 Nov 1915, *W. Grasshoff 738* (BO), 1916, *W. Grasshoff 1051* (BO, L).

**Etymology.** The Latin *lucidulus* means "somewhat shining", which we interpret as referring to the slightly glossy nature of the upper leaf surface.

**Provisional conservation assessment.** This regionally widespread species is found mainly in the lowlands, which have been prone to much disturbance and land-use transformation. Globally it should be considered Vulnerable (VU) because of a significant reduction in extent of occurrence.

**Notes.** Occasional specimens also have galled inflorescences (witches' broom) where flowers are not formed.

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