

BAHARUIA, A NEW GENUS OF APOCYNACEAE FROM MALESIA

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SUMMARY

Baharua, a new genus in the Apocynaceae, subfamily Apocynoideae is described. There is one species, *B. gracilis*, collected from Borneo and Sumatra.

INTRODUCTION

Whilst revising the genus *Urceola* Roxb. I came upon fairly extensive collections of what initially appeared to be a rather unusual species of *Urceola*. Considering that more than 30 collections of this species have been made from both Malaysian and Indonesian Borneo, Brunei, and Sumatra it is rather surprising that it has not been described. The only mention of it in the literature is in Merrill (1929) where a collection is placed under *Ecdysanthera* sp. The single species, whilst outwardly resembling an *Urceola*, particularly in the small flowers, basally situated stamens, pubescent ovary and hair-filled domatia in the axils between the midrib and lateral veins on the leaves, also has a number of characters which relate it to *Ichnocarpus*, such as the row of colleters on the inside base of the sepals, narrow, strongly falcate corolla lobes and the glabrous, linear seeds. The fruits, however, are torulose, a feature found in *Parameria* and some species of *Urceola*. Equally, hair-filled domatia are unknown in *Ichnocarpus*. On the other hand both *Urceola* and *Parameria* have characteristic brown pubescent seeds and a crown of brown hairs immediately beneath the coma, features completely lacking in this new species. Against the trend in recent works in the Apocynaceae, where the number of genera has been reducing (Leeuwenberg, 1991, 1994a, 1994b; Middleton, 1994), it seems necessary to describe this species in a new genus. Despite its superficial resemblance to *Urceola* it would seem to be most closely related to *Ichnocarpus*.

MATERIALS AND METHODS

Herbarium material was studied from the following herbaria: A, AAU, BISH, BM, BO, BR, C, G, GH, K, KEP, L, MO, P, S, SING, U, Z. The measurements are for dried material except for stamen and ovary characters which are based on flowers which have been rehydrated by boiling in water.

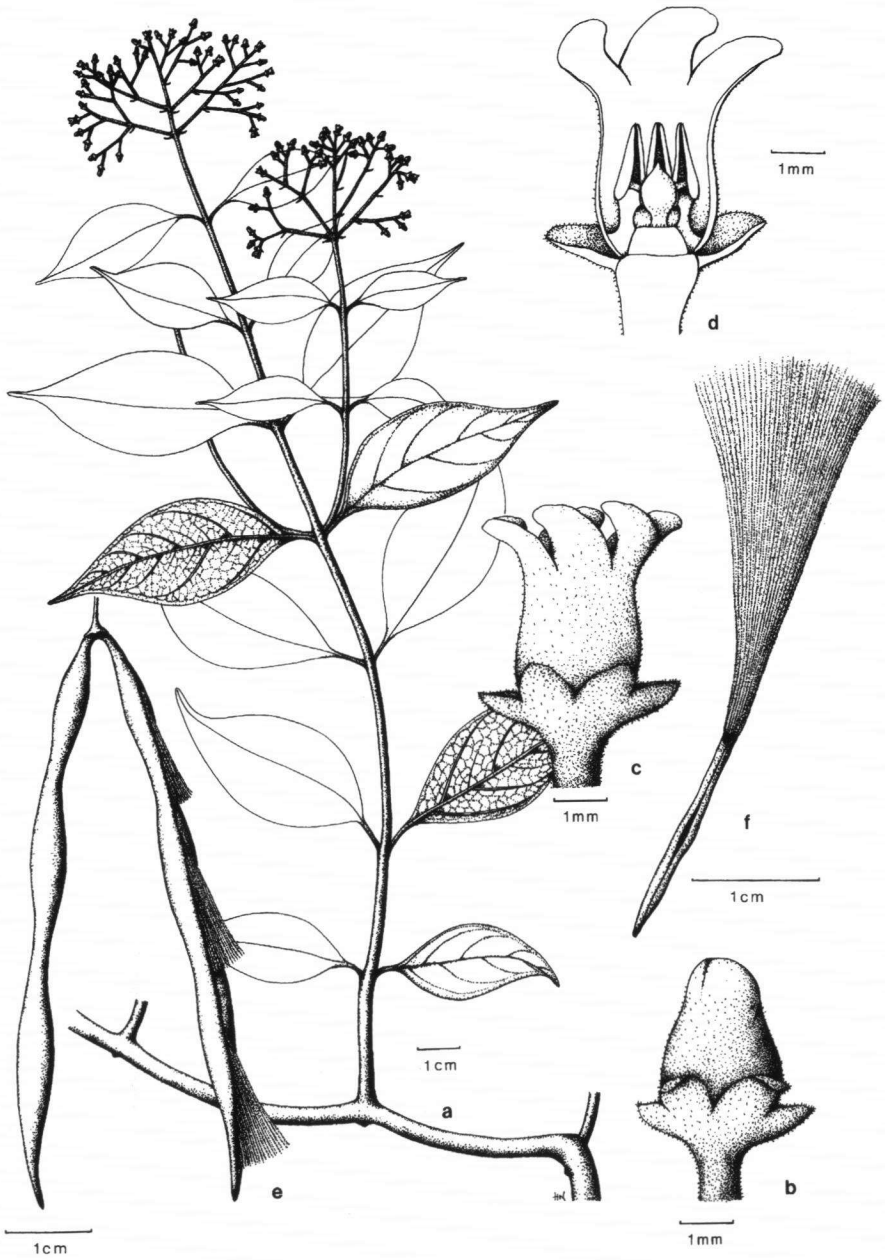


Fig. 1. *Baharua gracilis* D.J. Middleton. a. Habit; b. flower bud; c, d. open flower; e. fruits; f. seed.

BAHARUIA D.J. Middleton, *gen. nov.*

Frutices alte scandentes. Folia opposita, membranacea, paucinervis, domatiis pilis repletis. Cymae laxae, flores parvi. Corolla urceolata, lobi contorti, dextrosum obtegentes. Stamina basi corollae affixa, inclusa, filamentis brevibus, antherae anguste triangulares, basi sagittatae, pistillo adhaerentes. Discus 5-lobus. Ovarii carpella 2, distincta, disco longiora, stylus brevis. Folliculi elongati, torulosi. Semina linearia, grana glabra, apice coma coronata. — Type species: *Baharuia gracilis* D.J. Middleton.

Climbers or scramblers; producing latex. *Branches* lenticellate or not. *Leaves* opposite; those of a pair equal in size; petiolate; blade papery, entire; lateral veins few, strongly ascending; hair-filled domatia in the axils of the lateral veins with the midrib. *Inflorescence* a terminal and/or axillary cyme; lax. *Flowers* 5-merous, actinomorphic, small. *Sepals* free, colleters in a row on the inside of the base. *Corolla*: lobes in bud overlapping to the right; mature corolla urceolate to salverform, consisting of a tube and somewhat spreading lobes; lobes narrow, strap-shaped, strongly bent to the right as viewed from inside. *Stamens* completely included within the corolla tube, attached in a ring to the pistil head; anthers with a short filament, narrowly triangular, apex acuminate, base sagittate, sterile at apex and base. *Disc* 5-dentate or 5-crenate, usually slightly shorter than ovary. *Ovary* of 2 separate carpels united into a common style, superior, ovoid, pubescent. *Fruit* of 2 parallel or slightly divergent follicles; narrow and torulose; longitudinally dehiscent. *Seeds* linear; glabrous; unbeaked apex bearing a cream-coloured coma.

Distribution — Borneo, Sumatra (as yet not recorded from the Malay Peninsula where one might expect it to occur from its current known distribution).

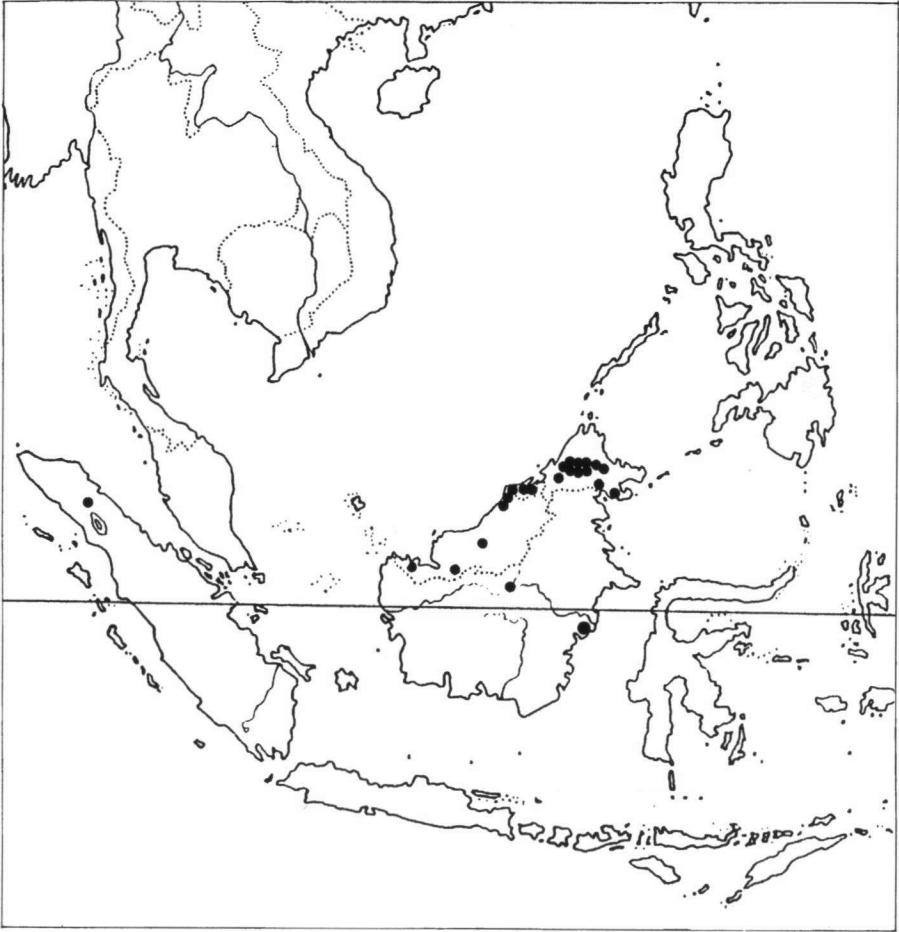
Note — Only one species known. The name derives from a Malay word for new.

Baharuia gracilis D.J. Middleton *spec. nov.* — Fig. 1, Map. 1

Ecdysanthera sp. Merr., Pl. Elm. Born. (1929) 255.

Folia ovata, elliptica vel obscure obovata, apice acuminata vel caudata, basi cuneata usque rotundata, usque 11.1 × 3.7 cm. Cymae puberulae. Lobi calycini ovati, apice acuti usque rotundati, usque 1.3 × 0.9 cm. Tubus corollae usque 3.1 mm longus, lobi usque 2.2 mm longi. — Typus: *Wood SAN 4678* (holo L; iso KEP, SING).

Branchlets densely brown puberulent or, rarely, glabrous; branches lenticellate or not. *Leaves*: petiole 2–7 mm long; blade papery, ovate, elliptic or weakly obovate, apex acuminate to caudate, base cuneate to rounded; 2.3–11.1 cm long, 0.9–4.7 cm wide, 2–3.6 × as long as wide; 3–8 pairs of lateral veins, strongly ascending, tertiary venation laxly reticulate; hair-filled domatia in secondary vein axils with the midrib, occasionally also sparsely puberulent on the midrib. *Inflorescence* puberulent; 1.7–9.5 cm long; pedicels 0.9–4.5 mm long. *Sepals* ovate, apex rounded to acute; 0.8–1.3 mm long, 0.6–0.9 mm wide, 1 to 2 × as long as wide; puberulent. *Corolla* yellow to orange; tube 1.3–3.1 mm long; lobes 0.9–2.2 mm long, 0.5–0.9 mm wide, 0.5–1.1 × as long as tube; puberulent outside, puberulent behind stamens inside. *Stamens* inserted at 0.2–0.5 mm from corolla base, which is 0.1–0.2 of the tube length; filaments 0.3–0.7 mm long; anthers 1.2–1.6 × 0.4–0.6 mm, 2.3–4 ×



Map 1. Distribution of *Baharuia gracilis* D. J. Middleton.

as long as wide. *Disc* 0.4–0.8 mm long. *Ovary* 0.4–0.9 mm long; style and pistil head 0.7–1.1 mm long. *Fruit* glabrous or very sparsely puberulent; 4–20 cm long, 1.8–4 mm wide. *Seeds* 11.2–17 mm long, 1.1–2 mm wide; coma 1.7–2.3 cm long.

Distribution — Malaysia (Sabah, Sarawak), Indonesia (Sumatra, Kalimantan), Brunei.

Ecology — In evergreen forest or on forest margin to 900 m altitude.

Specimens studied — BRUNEI. Temburong District, Bukit Belalong, ridge to false summit, *K. M. Wong* 1490 (AAU, K, KEP, L, SING); Belait District, Labi Hills Forest Reserve, Bukit Telingan, *K. M. Wong* 1590 (K, KEP, SING); Ulu Belalong, *Kirkupa et al.* 865 (K). — INDONESIA. Sumatera Aceh: Gunung Leuser National Park, Sikundur Forest Reserve, c. 75 km WNW of Medan, Bisitang R., *de Wilde & de Wilde-Duyffes* 19483 (BO, K, L), 19510 (BO, K, KLU, L, P), 21125 (BO), 21305 (BO); *Iwatsuki et al.* S 408 (BO, L). — Kalimantan Timur: Rintis Baru, Samboja-Semai Road, Wanariset research area, *Ambri & Arifin* AA 390 (A, K, L). — Kalimantan Barat: Bukit

Raya, Kapit, Sibul, *Kudi S 23804* (AAU, K, L); Bukit Raya, Batu Badinging, *Veldkamp 8598* (BO, L). — MALAYSIA. Borneo: s.l. *Beccari 1635* (G, K, P), *1466* (G). — Sabah: s.l. *Creagh s.n.* (K); Sandakan District, Pembangunan Sabariah Ltd, Sungei Kun-Kun, *Aban SAN 97102* (K, L); Sandakan District, Pembangunan Sabariah Sdn. Bhd, Sungei Kun-Kun, *Gibot SAN 97241* (L); Sandakan District, Bukit Tangkunan, Telupid, *Dewol SAN 92421* (K, KEP); Tongod District, Sungei Binalik, Keramuak, *Dewol SAN 96980* (L); Tawao, *Elmer 21408* (A, BISH, BM, BR, C, G, GH, K, L, M, MO, S, U, Z); Kolabakan District, YB Hew logged area, Mt Tembuku, *Fidilis & Sumbing SAN 91775* (K, L); Nabawan District, Shang Lian unlogged area, *Fidilis & Asik SAN 109995* (L); Nabawan District, Sungei Pingas-Pingas, Maitland area, *Krispinus SAN 113957* (K); Nabawan District, Sungei Millian, *Krispinus SAN 118553* (K); Tenom District, Kambaliangan hill, Tomani, *Talip SAN 50539* (K, L); Kinabatangan District, Bukit Garam (1 mile E of Lamag), *Wood SAN 4678* (KEP, L, SING); Keningau District, Nabawan, *Dewol & Karim SAN 77956* (K, KEP, L, SING); Keningau District, Ulu Sungei Mantuluk Witt Range, *Fidilis & Sumbing SAN 113242* (KEP); Keningau District; Shang Lian logging area, Lanas, *Fidilis SAN 118486* (KEP); Tawau District, Sri Usukan, Hap Seng, *Fidilis & Sumbing SAN 88989* (K). — Sarawak: s.l. *Beccari 3199* (K); 1st Division, Sungei Sendok, Matang, Kuching, *Lee & Hock S 53878* (K, KEP, MO); 2nd Division, Sungei Antu, Ng. Entalau, Sekarang, Simanggang, *Paie S 45154* (K, KEP, L); 4th Division, 6.5 miles Bakam Road, Miri, *Au & Chai S 24130* (K, L, SING); 4th Division, Bukit Lambir, Miri, *Luang S 24310* (K, L), *Murshidi S 24052* (K, L, SING), *Yii et al. S 43168* (K, KEP, L, MO); 5th Division, Bukit Tebunan, Ulu Trusan, Lawas, *Lee S 52550* (K, KEP, MO).

ACKNOWLEDGEMENTS

I would like to thank Matthew Jebb and John Parnell for their comments on the manuscript and Holly Nixon for the illustration.

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