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A New Species and a New Combination in Bornean *Kopsia* (Apocynaceae: Apocynoideae)

DAVID J. MIDDLETON

Harvard University Herbaria, 22 Divinity Avenue, Cambridge, MA 02138, U.S.A.

Abstract

A new species, *Kopsia rajangensis* D.J.Middleton, is described and a new combination, *Kopsia pauciflora* Hook.f. var. *mitrephora* (Sleesen) D.J.Middleton, is made.

Introduction

As preparation for an account of the Apocynaceae for the Tree Flora of Sabah and Sarawak, it is necessary to describe a new species of *Kopsia* and reduce *Kopsia mitrephora* Sleesen to a variety of *Kopsia pauciflora* Hook.f.

Kopsia rajangensis D.J.Middleton, ***sp. nov.***

Frutex 1.2–4.6 m altus, ramis glabris. Folia elliptico-oblonga, 13.4–32 x 3.8–9.6 cm, nervis 9–25 paribus. Corollae tubus 21.5–25 cm, lobis 11–14 x 2.7–4.7 mm. **Typus:** Borneo, Sarawak, Kapit, Upper Rejang River, *Clemens & Clemens 21221* (holo MO; iso A, BM, BO, NY, SAR)

Small tree or shrub, 1.2–4.6 m tall. Branchlets glabrous, not or sparsely lenticellate, terete. *Leaves*: petiole 4–9 mm long, glabrous; blade papery to subcoriaceous, elliptic or oblong, apex caudate, base obtuse to cuneate, 13.4–32 x 3.8–9.6 cm, 2.6–4.3 times as long as wide, midrib shallowly sunken or raised and with a central groove above, secondary veins 9–25 with 6–25 mm spacing, 40–60° from midrib, prominent or flat above, prominent beneath, clearly discernable from tertiary venation above and beneath, straight or slightly ascending near margin, tertiary venation prominent above, prominent or flat beneath, reticulate or sub-perpendicular to midrib and oblique to secondary veins, intramarginal vein looped and inset from margin, glabrous above and beneath. *Inflorescences* dichasial and then with cincinnate branches, 4–15 cm long with axes 14–140 x 1.4–2.1 mm, glabrous to densely puberulent; peduncle 2–76

x 1.7–3.7 mm; pedicel c. 4 mm long; bracts persistent in inflorescence. *Sepals* ovate, apex rounded, 1.5–1.7 x 1.1–1.4 mm, 1.2–1.4 times as long as wide, ciliate, otherwise glabrous outside and inside. *Corolla* white; tube 21.5–25 x c. 2.3 mm, pubescent around stamens and slightly beneath inside, throat pubescent, glabrous outside, 1.8–2 times as long as lobes, 12.6–16.7 times as long as calyx; lobes elliptic or oblong, apex obtuse or acute, 11–14 x 2.7–4.7 mm wide, 3–4.5 times as long as wide, not ciliate, glabrous outside and inside. *Stamens* 17–21 mm from corolla base which is 0.79–0.84 of corolla tube length; anthers 1.7–2 x 0.6–0.8 mm, 2.5–2.8 times as long as wide, 1.1–2 mm from corolla throat; filaments c. 0.7 mm long. *Ovary* 0.9 mm high, glabrous to densely pubescent; style 20 mm long; pistil head 0.8 mm long. *Fruits* falcate with small blunt projection near the base, 15–16 x 4 x 6.5–7 mm; projection 3–4 mm long.

Distribution: Borneo – SARAWAK: endemic to the Rajang River area.

Habitat: In hill forest and disturbed primary forest on rich clay soil.

Notes: Merrill (1921) compared a specimen of this species, *Haviland 3042*, to *Kopsia macrophylla* Hook.f. but offered no further identification. Timmerman-Van der Sleesen (1959) was the first to note the peculiarity of the material and compared it to *Kopsia lapidelecta* Sleesen and *Kopsia tenuis* Leenh. & van Steenis, again without making a recommendation as to what it might be or describing a new species. Anderson (1980) and Ashton (1988) called this species *Kopsia larutensis* King & Gamble, a species known only from Peninsular Malaysia. *Kopsia rajangensis* differs from *K. larutensis* in its larger inflorescences, much larger flowers and relatively wider corolla lobes. Markgraf (1972) cited the specimens under *Kopsia arborea* Blume. As can be seen, there has been remarkably little agreement on the identification of the species around Kapit on the Rajang River, which the Clemenses spelt 'Rejang'. Part of the problem has been the lack of good material.

This new species is probably related to *Kopsia lapidelecta* and *Kopsia sleeseniana* Markgr. It differs from the former in its secondary venation, intramarginal vein and larger flowers, and from the latter in its smaller flowers and also its venation.

Specimens examined: Sarawak: Kapit, Upper Rajang River, *Clemens & Clemens 21211* (SAR), *Clemens & Clemens 21221* (A, BM, BO, MO, NY, SAR); Pelagus Rapids, *Ashton S17797* (L); Rajang River, *Haviland 3042* (BM, SAR, SING); Bukit Raya, *Smith S27738* (SAR).

Kopsia pauciflora Hook.f. **var. *mitrephora*** (Sleesen) D.J.Middleton, ***comb. nov.***

Basionym: Kopsia mitrephora Sleesen, Blumea 10 (1960) 136. **Type**: *G.H.S. Wood SAN 16118*. Borneo, Sabah, Lahad Datu, Path between Sungai Sabahan and Sungai

Dok (holo L; iso BRI).

Notes: Kopsia mitrephora was formally described by Timmerman-Van der Sleesen (1960) following on from her earlier, but not validly published, account of the species (1959). In the earlier work she distinguished *K. mitrephora* on the basis of its stamens inserted in the lower part of the corolla tube, a character unusual in the genus, and on its delicate leaves. However, with the many more specimens available now, it is clear that the vegetative characters in this species are extremely variable and closely parallel the vegetative variation found in *K. pauciflora*. These variations include the size of the wings or angles on the stems, the thickness of the leaves, the length of the petiole and the degree of prominence of the venation. Despite long attempts to put some sort of order to this variation, and indeed there are character states concentrated in some geographical areas, no further taxa could be distinguished in either species. In addition, it became increasingly clear that the only character to distinguish *K. pauciflora* and *K. mitrephora* was the site of insertion of the stamens and that otherwise both species were remarkably similar, including in fruit characters. Therefore, varietal status is appropriate for *Kopsia pauciflora* var. *mitrephora*.

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