APHANOMYRTUS MIQUEL AND PSEUDOEUGENIA SCORTECHINI

by

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In 1898 KOORDERS and VALETON [1]) considered the three species of MIQUEL's genus then known as *Aphanomyrtus rostrata* MIQ. Sumatra (and Java?), *A. octandra* KOORD. & VAL., Java, and *A. camphorata* VAL., the latter described from a plant cultivated in the Botanical Garden at Buitenzorg, its origin unknown. The three recognized species were well illustrated. They gave an amplified description of MIQUEL's genus, calling attention to the fact that it had been erroneously reduced to the very different *Baeckea*. They did not then realize that the genus *Pseudoeugenia* SCORT. (1885) was a synonym of *Aphanomyrtus* MIQ. Nine years later VALETON [2]) again considered the genus, having recognized the identity of *Pseudoeugenia* SCORTECHINI (1885) with *Aphanomyrthus* MIQUEL (1855), and making the reduction of the former. He recognized four species, *A. rostrata* MIQ. (*Pseudoeugenia singaporensis* KING), Sumatra, Banka, and the Malay Peninsula; *A. tetraquetra* (MIQ.) VAL. (*Jambosa tetraquetra* MIQ., *Aphanomyrtus octandra* KOORD. & VAL., *A. octandra* var. *tetraquetra* KOORD. & VAL.); *A. skiophila* (DUTHIE) VAL. (*Eugenia skiophila* DUTHIE, *Pseudoeugenia perakiana* SCORT.), Penang and the Malay Peninsula, but of which he saw no material (credited also to Sumatra by RIDLEY); and *A. camphorata* VAL. cultivated at Buitenzorg, Java.

VALETON reconsidered the genus in 1907 because of his belief that the KOORDERS & VALETON paper of 1898 was not generally available to botanists, for in the meantime KING (1901) had redescribed *Aphanomyrtus rostrata* MIQ. as *Pseudoeugenia singaporensis*. Both papers were

[1]) KOORDERS, S. H. and VALETON, TH., Aphanomyrtus Miquel, eine Verkannte Gattung der Myrtaceae. Ann. Jard. Bot. Buitenz. Suppl. 2: 145—151, t. 6—8, 1898.

[2]) VALETON, TH., Die Arten der Gattung Aphanomyrtus und ihre Synonymik. Repert. Nov. Sp. 4: 234—255. 1907.

apparently overlooked by RIDLEY, for in his Flora of the Malay Peninsula (1922) he still retained the two Malay Peninsula species under *Pseudoeugenia*, as *P. perakiana* SCORT. and *P. singaporensis* KING; and in 1927 described a third species, *P. tenuifolia* RIDL., from the Peninsula. In the meantime GREVES had recognized MIQUEL's genus and described *A. Forbesii* GREVES from Sumatra, which seems to be a synonym of *A. tetraquetra* (MIQ.) VAL., and LAUTERBACH described another species, *Aphanomyrtus alata* LAUTERB., from New Guinea; the last species probably belongs in some other genus.

BENTHAM & HOOKER F. [1]) merely mention *Aphanomyrtus* MIQ. among the doubtful or excluded genera of the Myrtaceae, suggesting, in the absence of fruits, an alliance with *Baeckea*. NIEDENZU, ENGLER & PRANTL [2]) placed it, without question, as a synonym of *Baeckea* LINNAEUS, to which it is not closely allied, belonging properly in the alliance with *Eugenia*.

In appearance the several species of *Aphanomyrtus*, except *A. alata* LAUTERB., closely approximate various forms of *Eugenia*, § *Syzygium*, but they differ from *Eugenia* LINN. *sensu latiore* in the great reduction in the number of stamens, these ranging from four to eight; and from *Syzygium* not only in the stamen character just mentioned, but also in the petals being free, spreading at maturity, and not at all calyptrate.

No matter what limits be assigned to *Eugenia*, these forms, because of the small number of stamens, cannot legitimately be placed in that genus; and they are distinct from all other proposed generic segregates from *Eugenia*, and from all proposed sections or subgenera. As *Pseudoeugenia* SCORT. (1885) is manifestly the same as the genus MIQUEL characterized in 1855 as *Aphanomyrtus*, there is no reason for maintaining *Pseudoeugenia* except the inertia among those who hesitate to discard names with which they are familiar.

As *Aphanomyrtus* MIQUEL is at present understood the four definitely recognized species are confined to the Malay Peninsula, Sumatra, and Java. *A. alata* LAUTERB., which occurs in New Guinea, may well prove to belong to some other genus, but here one needs to see fruits before making a definite decision. The following species are recognized:

1. **Aphanomyrtus minima** (BLUME) comb. nov. — *Eugenia minima* BLUME, Cat. Gew. Buitenzorg 75, 1823; DC. Prodr. 3: 271, 1828 —

[1]) Gen. Pl. 1: 696. 1862—67.

[2]) Nat. Pflanzenfam. 3 (7): 98. 1893.

Myrtus variegata BLUME, Bijdr. 1082, 1826 — *Jambosa tetraquetra* MIQ., Fl. Ind. Bat. 1 (1): 433, 1855 — *Aphanomyrtus octandra* KOORD. & VAL., Ann. Jard. Bot. Buitenzorg Suppl. 2: 148, t. 7, 1898; Meded. 's Lands Plantent. 40: 166, 1900 (Bijdr. Boomsoort. Java 6: 166) — *A. octandra* KOORD. & VAL. var. *tetraquetra* Koord. & Val., Meded. 's Lands Plantent. 40: 167, 1900 (Bijdr. Boomsoort. Java 6: 167) — *A. tetraquetra* VAL., Repert. Sp. Nov. 4: 235, 1907; KOORD., Atlas Baumart. Java 2: t. 438, 1914 — *A. Forbesii* GREVES, Jour. Bot. 62: Suppl. 36, 1924 (FORBES' Malayan Plants 36).

BLUME's original description of 1823 is as follows:

"Eugenia minima Bl. E: foliis integerrimis breviter petiolatis ovali-"lanceolatis obtuso-acuminatis basi angustatis; pedunculis axillaribus "multifloris. Flores minima albidi, calice crenulato. Bacca obovato "magnitudine ribis albo rubroque variegata."

In the text above he cites the local name as *ki-jankar*. Three years later he redescribed the species as *Myrtus variegata*, Bijdr. 1082, 1826, this description being as follows: "Myrtus variegata. M: foliis breviter "petiolatis elliptico lanceolatis tenuiter parallelo-striatis glabris, pedun-"culis confertis axillaribus folio brevioribus, calyce crenulato. *Syn.* "*Eugenia minima* mihi in Catal. hort. Buitenzorg, pag. 75." To BLUME's descriptions DE CANDOLLE later added: "Calyx basi subattenuatis Blum. "in litt.".

In their Bijdrage, KOORDERS & VALETON cite *Eugenia minima* BLUME as a doubtful synonym of *Aphanomyrtus octandra* KOORD. & VAL., and from the brief original description, particularly that of the fruit, it seemed to me likely that this disposition of BLUME's species was correct. This I have been able to verify by an examination of BLUME's type through the courtesy of Doctor H. J. LAM, Director of the Rijks-herbarium, Leyden. This specimen is an ample one collected apparently by REINWARDT, on Mount Salak, Java, December, 1822, and bears the local name cited by BLUME, and both of his binomials.

The species is well represented by various Javan collections and KOORDERS & VALETON cite a TEYSMANN collection from Sumatra. The type of *Aphanomyrtus Forbesii* GREVES is FORBES 2889 from Kaba Volcano, Sumatra, and VALETON cites this collection, Repert. Sp. Nov. 4: 234, 1907, as representing *Aphanomyrtus tetraquetra* (MIQ.) VALETON.

2. Aphanomyrtus rostrata MIQ., Fl. Ind. Bat. 1 (1): 481, 1855; Suppl. 120, 1861; KOORD. & VALETON, Ann. Jard. Bot. Buitenzorg Suppl. 2: 148, t. 6, 1898; VALETON, Repert. Nov. Sp. 4: 234, 1907 — *Pseudo-eugenia singaporensis* KING, Jour. As. Soc. Bengal 70 (2): 133, 1901

(Mater. Fl. Malay Penin. 3: 563); RIDL., Fl. Malay Penin. 1: 755, 1922 — *Myrtus? caudata* WALL., List no. 3631, 1830, *nomen nudum*.

In his original description MIQUEL merely states "Sumatra, Java, in de woudstreken" but in his Supplement, 120, states only "W. S." i.e., western Sumatra. Doubtless the citation of "Java" is an error, as the species still remains as otherwise unrecorded from Java. VALETON records it from western Sumatra (JUNGHUHN, doubtless the type collection), Banka (BERKHOUT) and Perak (KING's collector), RIDLEY cites a number of localities in the Malay Peninsula. I have examined specimens from Singapore (CORNER 26029, Johore; CORNER 28179, 21346) and Sumatra, East Coast, Laboehan Batoe, Kota Pinang, Si Mandi Angin (RAHMAT SI TOROES 4085, April-May, 1933).

3. **Aphanomyrtus skiophila** (DUTHIE) VALETON, Repert. Nov. Sp. 4: 235, 1907 — *Eugenia skiophila* DUTHIE in HOOK.F., Fl. Brit. Ind. 2: 486, 1879 — *Pseudoeugenia perakiana* SCORT., Jour. Bot. 23: 153, 1885; RIDL., Fl. Malay Penin. 1: 755, 1922 — *Pseudoeugenia perakensis* KING, Jour. As. Soc. Bengal 70 (2): 133, 1901 (Mater. Fl. Malay. Penin. 3: 563) *sphalm.*! — *Aphanomyrtus camphorata* VAL., Ann. Jard. Bot. Buitenzorg Suppl. 2: 149, t. 8, 1898, Repert. Nov. Sp. 4: 235, 1907.

Aphanomyrtus camphorata VALETON was based on material taken from a tree cultivated at Buitenzorg (Hort. Bogor. V. B. 109), its origin unknown. I have examined sterile material from this tree, and after comparison of this with VALETON's excellent illustration, and various collections from the Malay Peninsula, I am constrained to reduce the species to *A. skiophila* (DUTHIE) VALETON; of the latter VALETON had seen no authentic material when he treated the three species in 1898, and when he again considered the *Aphanomyrtus* species in 1904. RIDLEY records the species from Perak, Penang, and Sumatra. The oldest collection that I have seen is MAINGAY 738-2, from the Malay Peninsula, no locality given. Other specimens include SCORTECHINI 491, KING's collector 4793, and WRAY 1845 from Perak, HOLTTUM 24933 from Johore, HENDERSON 19371 from Pahang, and V. B. 109 Hort. Bogor., a sterile specimen from VALETON's type tree of *Aphanomyrtus camphorata* VALETON. It is also represented by RAHMAT SI BOEEA 7211, 8095 from Sumatra, East Coast, Asahan, Hoeta Bagasan and Leomban Ria, with the local names *kajoe hasendolok radja* and *kajoe lossir-lossir*.

4. **Aphanomyrtus tenuifolia** (RIDL.) comb. nov. — *Pseudoeugenia tenuifolia* RIDL., Kew Bull. 123, 1929.

This species was based on a single collection from Pahang, Malay Peninsula, HAMID 10556. RIDLEY compared it with *Pseudoeugenia perak-*

iana SCORT. = *Aphanomyrtus skiophyla* (DUTHIE) VALETON, from which it differs in its thinner leaves and fewer nerves, about 20 nerves on each side of the midrib.

Aphanomyrtus alata LAUTERB., in Lorentz, Nova Guinea 8: 854, 1912 (Southwestern New Guinea, Hellwig Mountains, NATIVE COLLECTOR 725).

From the description it is suspected that when fruits become available this small leaved form will probably be found to represent some other genus than *Aphanomyrtus*, perhaps near *Baeckea*.