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RESEARCH ARTICLE

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Richella (*Annonaceae*) in Malesia re-examined

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Abstract The generic placement of *Richella ovalifolia* (Ridl.) Steenis, the only Malesian species of *Richella*, is reviewed. It is concluded that the species belongs in *Friesodielsia* and a new combination is made for it in that genus, and the species is lectotypified.

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INTRODUCTION

The generic name *Friesodielsia* was proposed by Van Steenis (1949) as a substitute for the later homonym *Oxymitra* (Blume) Hook.f. & Thomson. *Annonaceae* specialists of that era were reluctant to concede the loss of *Oxymitra* which then included more than 50 species from across Africa and Asia. But the clear priority of the hepatic genus *Oxymitra* Bisch. ex Lindenb. (1829) could not be overturned. Before finally transferring species to *Friesodielsia*, Van Steenis (1964) considered the claims of *Richella* A.Gray as the correct name for *Oxymitra*. He concluded that *Richella* was distinct from *Oxymitra* and made 52 new combinations in *Friesodielsia*. One new combination, *Richella ovalifolia*, was made by Van Steenis for a species endemic to Borneo, increasing the number of species in the genus to three, with the other two from Fiji and New Caledonia. No reasons for the transfer of the Bornean species were given by Van Steenis, nor remarks on the rather odd disjunction in distribution of the genus such a transfer produced.

The separation of *Friesodielsia* and *Richella* has received support from a variety of morphological studies (Walker 1971, Van Heusden 1992, Van Setten & Koek-Noorman 1992) and has been generally accepted (Verdcourt 1971, Keßler 1993). Recently molecular and morphological evidence has shown that the Pacific species of *Richella* lie within the large palaeotropical genus *Goniothalamus* (Nakkuntod et al. 2009).

In preparing an account of the *Annonaceae* for the Tree Flora of Sabah and Sarawak it has been necessary to re-evaluate the placement of Bornean material in *Richella*. The first impression on looking at material of *Richella ovalifolia* is that it is a species of *Friesodielsia* and evidently Van Steenis erred in transferring *Melodorum ovalifolium* Ridl. to *Richella*. It is not clear if Van Steenis saw any material of the species, but Ridley's original description, mentioning "frutex scandens" is clearly at odds with Van Steenis's characterisation of *Richella* species as trees. Ridley described (Ridley et al. 1912) the pair of glands at the base of the lamina, not a noted feature of *Richella* (or *Goniothalamus*) but a common feature of Asian *Friesodielsia* (cf. epithets biglandulosa and diadena used for Bornean species). Similarly Sinclair (1951) provided a description of fruiting material of *Melodorum ovalifolium* noting the monocarps were stipitate, which again conflicts with a placement of the species in *Richella* for which Van Steenis had emphasised the sessile monocarps. Sinclair transferred the species to *Oxymitra* and did not remark on any major discrepancy between *Oxymitra ovalifolia* and other species of *Oxymitra* from Borneo. In fact he annotated the type specimens he had on loan from the herbarium of the Sarawak Museum *Friesodielsia ovalifolia*, though clearly he later decided to continue the use of *Oxymitra* for the generic name.

The inclusion of the Pacific *Richella* in the much larger genus *Goniothalamus* (130 species or more) does not make *Richella ovalifolia* more tenable. *Goniothalamus* species are trees and treelets, not climbers. The abaxially glaucous leaves, extra-axillary flowers with long narrow triquetrous outer petals excavated at the base and strongly apiculate, unclawed inner petals, and stipitate, nippled-tipped monocarps with smooth glabrous seeds of *Richella ovalifolia* are similar to most species of Malesian *Friesodielsia* but unlike *Goniothalamus* which rarely has glaucous leaves, has axillary inflorescences, generally flat outer petals and clawed inner petals cohering to form a vaulted dome over the reproductive structures, and often hairy seeds.

I conclude that Van Steenis was wrong in transferring *Melodorum ovalifolium* to *Richella*. The species belongs in *Friesodielsia*:

Friesodielsia ovalifolia (Ridl.) I.M.Turner, *comb. nov*.

Melodorum ovalifolium Ridl., Bull. Misc. Inform. Kew (1912) 387. — *Fissistigma ovalifolium* (Ridl.) Merr. (1919) 134. — *Oxymitra ovalifolia* (Ridl.) J.Sincl. (1951) 607. — *Richella ovalifolia* (Ridl.) Steenis (1964) 357. — Type: *Haviland & Hose 3151* (lectotype, designated here, K), Borneo, Sarawak, Kuching Division, Kuching District, near Kuching, 17 May 1894.

Specimens studied. Borneo, Sarawak, Kuching Division, Kuching District, Kuching, *Haviland & Hose 3141* (K, SAR (×2), SING); Siol, *Hewitt 164* (A.7.13) (SAR); Jalan Penrissen, *Banyeng & Benang S 26258* (SAR); Lundu District, Bukit Snibong, Sampadi F.R., 25th mile, Bau-Lundu Road, *Ilias Paie S 27795* (K, SAR); Samarahan Division, Simunjan District, Meluku, *Yii S 72718* (SAR); Gunung Neraci, *Hasbi et al. S 89703* (SAR); Sri Aman Division, Lubok Antu District, Ulu Engkari, Bukit Ubah Ribu, *Endela et al. S 87265* (SAR); Kapit Division, Song District, Ulu Sungai Katibas, *Yii et al. S 65020* (SAR). – Kalimantan, Central Kalimantan, Sintang, HPH km 70, *Church et al. 818* (A, BO).

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