EDINBURGH JOURNAL OF BOTANY 75 (3): 305–307 (2018) 
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doi: 10.1017/S0960428618000124

# A NEW COMBINATION IN *MICROCHIRITA* (GESNERIACEAE) FROM INDIA

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The new combination *Microchirita cristata* (Dalzell) D.J.Middleton is made.

*Keywords. Chirita*, *Didymocarpus cristatus*, Western Ghats.

## Introduction

The genus *Microchirita* (C.B.Clarke) Yin Z.Wang in the Gesneriaceae, subfamily Didymocarpoideae, is a genus of about 36 species from India, Myanmar, southern China, Thailand, Vietnam, Laos, Cambodia, Peninsular Malaysia, Sumatra, Java and Borneo, almost exclusively in limestone habitats (Puglisi & Middleton, 2017). *Microchirita* was formerly included as a section of *Chirita* Buch.-Ham. (Wood, 1974) but was raised to generic rank by Wang *et al.* (2011) when *Chirita* was found to be polyphyletic (see Weber *et al.*, 2011). The centre of diversity of *Microchirita* is in Thailand (Puglisi & Middleton, 2017), although the genus has been much less well studied elsewhere and it is likely there are many more species to be described, particularly from Laos and Vietnam.

There is relatively little variation in vegetative characters in the genus but considerable variation in the structure of the inflorescence and in flower characters, most noticeably in the size, shape and colour of the corolla. Flower colour is generally lost in herbarium material and many species appear rather similar from herbarium specimens that lack good collection data. Useful characters in the anthers and ovary are usually observable only when the flowers are dissected. Wood (1974) included all specimens with small white flowers in a broadly circumscribed *Chirita hamosa* R.Br. but noted that this species was "confusingly variable". Middleton & Triboun (2013), who saw more collections and carried out fieldwork to observe differences in corolla shape and colour in living plants, split *Microchirita hamosa* (R.Br.) Yin Z.Wang into several species that all had small white flowers but differed consistently in other morphological characters. Subsequently, Middleton & Puglisi (2015) discussed problems in application of the name *Chirita*/*Microchirita hamosa* and proposed to conserve the name with a new type. This was supported by the Nomenclature Committee for Vascular Plants (Applequist, 2016) and ratified at the 2017 International Botanical Congress.

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https://doi.org/10.1017/S0960428618000124 Published online by Cambridge University Press

The work of Middleton & Triboun (2013) and Puglisi & Middleton (2017) primarily concerned the clarification of species limits in the genus in Thailand. Rafidah (2017) revised the genus in Malaysia. In other parts of its distribution, however, *Microchirita* remains rather poorly known. Möller *et al.* (2017) suggested that there were two species of *Microchirita* in India. These were not listed, but photographs of *Microchirita hamosa* were included. Puglisi & Middleton (2017) noted that the ranges of three species found in Thailand, *Microchirita albiflora* D.J.Middleton & Triboun, *M. bimaculata* (D.Wood) A.Weber & D.J.Middleton and *M. hamosa* (R.Br.) Yin Z.Wang, also included India, making four species in total with the Indian endemic *M. sahyadriensis* (Punekar & Lakshmin.) A.Weber & D.J.Middleton.

Wood (1974) listed only one species that is now included in *Microchirita* from India, *Chirita hamosa*, but did include a number of names in synonymy. Most of these synonyms are indeed *Microchirita hamosa*, but one, *Didymocarpus cristatus* Dalzell, is not this species if one extends the species concepts adopted by Middleton & Triboun (2013), Puglisi *et al.* (2016) and Puglisi & Middleton (2017). Burtt (1960) had also suggested that this was not the same as *Chirita hamosa* and made the combination *Chirita cristata* (Dalzell) B.L.Burtt.

The type of *Didymocarpus cristata* is a fruiting collection by Dalzell from Parwarghat (= Parva Ghat) in the south of Maharashtra State. It has only remnant corollas, but these have only very few hairs on the outside, unlike the corollas of *Microchirita hamosa*, which are much more densely pubescent. The corollas are too shrivelled to tell if they are straight as in *Microchirita hamosa* or more curved as in most species in the genus. The corolla appears to be about 1 cm long, similar to that of *Microchirita hamosa*. The fruit is much less pubescent than in *Microchirita hamosa*, and generally curved when mature, unlike the straight fruit of *M. hamosa*. The crested inflorescence is also much larger and with more flowers than in *Microchirita hamosa*. There is no corolla colour data on the label of the specimen, but Dalzell (1851) says the corolla is white, the same as for *Microchirita hamosa*.

With only a rather poor type collection and a few other fruiting specimens available, it remains rather unclear what *Didymocarpus cristatus* actually is, except that it is not *Microchirita hamosa*. It is from the Western Ghats of India, where only one other species is recorded, the white-flowered *Microchirita sahyadriensis*. As the type localities of the two species are within 80 km of each other, it is possible that these two are the same species, in which case *Didymocarpus cristatus* has priority. Flowering material from the type locality of *Didymocarpus cristatus* is needed to ascertain this. Whether they are one species or two, there is currently no combination in *Microchirita* for *Didymocarpus cristatus*. The combination is made here.

**Microchirita cristata** (Dalzell) D.J.Middleton, **comb. nov.** – *Didymocarpus cristatus* Dalzell, Hooker's J. Bot. Kew Gard. Misc. 3: 225 (1851). – *Chirita cristata* (Dalzell) B.L.Burtt, Notes Roy. Bot. Gard. Edinburgh 23: 96 (1960). – Type: India, Parwarghat, *Dalzell* s.n. (lecto K [K000735780], designated by Vitek *et al.* [2000: 490]). The Dalzell collection K000735779 may be an isolectotype, because the

https://doi.org/10.1017/S0960428618000124 Published online by Cambridge University Press

specimen closely matches the lectotype. However, it also has an old label with '*Symplocos*' written on it, thereby casting doubt over this specimen, as nobody could mistake these two genera.

## Acknowledgements

I thank Lesley Walsingham for her help with locating the type specimen of *Didymocarpus cristatus* in the Kew Herbarium. I also thank Henry Noltie and Adittya Dharap for their help in establishing the type locality of the species.

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*Received 7 February 2018; accepted for publication 24 April 2018; first published online 29 May 2018*

https://doi.org/10.1017/S0960428618000124 Published online by Cambridge University Press