

A new species of *Damrongia* (Gesneriaceae) from Thailand

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ABSTRACT. *Damrongia cyanantha* Triboun (Gesneriaceae), a new species from Kamphaeng Phet, Thailand is described. *Damrongia* is resurrected from synonymy with *Chirita*.

KEY WORDS: *Damrongia*, Gesneriaceae, new species, Thailand.

INTRODUCTION

During field work by the first author at Khlong Lan waterfall in Kamphaeng Phet in 2009, an undescribed, lithophytic species related to *Damrongia purpureolineata* Kerr ex Craib was found growing luxuriantly on the wet granitic rocks. The genus *Damrongia* (Gesneriaceae) was first proposed by Kerr in Craib (1918) to honour H.H. Prince Disakumara Krom Phraya Damrong Rachanuphap (1862–1943) of Thailand. Only one species of the genus, *D. purpureolineata*, has so far been described. A second species, *Petrocosmea kerrii* Craib, was also subsequently combined in *Damrongia* as *D. kerrii* (Craib) Pellegrin (Pellegrin, 1930) although this latter species is indeed a good species of *Petrocosmea* Oliv. as described by Craib (1918). Wood (1972, 1974) later included *D. purpureolineata* in *Chirita* Buch.-Ham. ex D. Don as *C. purpureolineata* (Kerr ex Craib) D. Wood although he did not provide any justification for reducing *Damrongia* to synonymy of *Chirita*. Burt (2001) treated this species in *Chirita* but also indicated that *Damrongia* may need to be excluded from *Chirita* based on its very short fruits. In Möller et al. (2009), a molecular phylogenetic study of the Didymocarpoid Gesneriaceae, *Chirita* was found not to be monophyletic. Further work (Möller, unpublished data), now including *D. purpureolineata*, has found that this species is quite far removed from the clade with the type of *Chirita*, *C. urticifolia* Buch.-Ham. ex D. Don, and is not included within any other available genus. Therefore, the

genus *Damrongia* should be resurrected. As currently delimited *Damrongia* is most easily distinguished from *Chirita* and other related genera by the bilabiate calyx. However, as Burt (2001) notes, its relationship to the other acaulescent scapose species in *Chirita* sect. *Chirita* needs to be further investigated. This work is ongoing at the Royal Botanic Garden Edinburgh.

It should also be noted that at the time that Craib (1918), Wood (1972, 1974) and Burt (2001) wrote their papers *Damrongia purpureolineata* was only known from the type locality at the Mae Ping rapids of Ban Gorge on damp limestone rocks.

This area of the Mae Ping River between Tak and Lamphun is now submerged because of the construction of Bhumibol Dam. Kerr, on his 1911 specimens, recorded the collection locality as ca 200 m above sea level. When the Bhumibol Dam was constructed, the water level consequently rose to over 250 m a.s.l. prompting Smitinand (1969) to speculate that this had caused the extinction of the species and also the genus. However, after a interval of five decades Mr Wuttipong Dongkumfu and Mr Tithipan Chuchan came across some populations of this plant in the vicinity of the Mae Ping area above the reservoir. The authors of this paper have since also visited the site of this small but healthy population of *D. purpureolineata*.

The new species described here is quite clearly related to *Damrongia purpureolineata* but differs in the longer stems, the larger leaves and

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inflorescences, and in the blue flowers (white or very pale blue with purple lines in *D. purpureolineata*). Both species are endemic to Thailand.

Damrongia cyanantha Triboun sp. nov. *Damrongiae purpureolineatae* in habitu, inflorescentiae figura, foliorum phyllotaxe et stigmati forma similis sed caulibus longioribus, foliis et inflorescentiis majoribus floribusque cyanatris differt. Typus: Thailand, Kamphaeng Phet, Khlong Lan waterfall, on moist granitic rocks in dry evergreen forest, 16 June 2009, Triboun & Yothakaew 4289 (holotype BK, isotypes BKF, E). Fig. 1.

Stem stout, less than 2 cm high. Roots fibrous. Leaves 6–15 in a rosette, the lower (mature) ones larger than the upper (young) ones; blade ovate or elliptic, 9–17 by 5–11 cm, apex acute, base cuneate, sometimes slightly oblique, margin serrate to crenate, veins 6–8 per side, puberulous on the upper surface and puberulent on secondary veins, midrib and margin on the lower surface; petiole 7–12(–17) by 2–3 mm in diam., pubescent. Inflorescences 2–5, scapose, umbelliform, each one with ca 10 flowers, 1–2 flowers opening at a time; peduncle 10–22 cm by 2–2.5 mm in diam., green or dark brown; bracts cordate, ca 1.6 by 1.8 cm, green; bracteoles variable in shape and size, obovate, elliptic or lanceolate, 2–8 by 3–6 mm, white with a green margin; pedicels brown. Sepals 5, all fused at base for 1.2–1.4 cm and then split into 3 distinct lobes; 3 upper sepals fused nearly to the apex of the posterior lobe, triangular, ca 1 by 1 cm, apex 3-dentate; 2 lower sepals appressed to each side of lower part of corolla tube, triangular, ca 6 by 7 mm long. Corolla funnelliform; tube 3.5–4 cm long, with narrowly cylindrical base ca 1 cm long and dilated upper part 2.5–3 cm long, puberulous outside, sparsely hairy inside; lobes quincuncial, almost circular to widely ovate, 0.6–0.8 by 1–1.1 cm, apex rounded or slightly acute; dark blue outside, dark blue inside with delicate white or dark blue lines. Stamens with white filaments, 1.2–1.4 cm long, connate to corolla tube for ca 8 mm; anthers yellow, free from each other, ca 3 by 3 mm; staminodes spatulate, 2–3 mm long, white, connate to corolla tube at a lower level than the stamens. Ovary ca 7 mm by 1.5 mm, with numerous ovules; style 2–2.2 cm by 1 mm in diam., light purple; stigma with upper lobe absent, lower lobe

expanded and downcurved, obcordate, ca 2 mm long, white. Disc annular with 5 ridges, white. Fruit unknown.

Thailand.—NORTHERN: Kamphaeng Phet: Khlong Lan Waterfall.

Distribution.— Endemic to Thailand, known only from the type locality.

Ecology.— On granitic rock and slopes along a waterfall in dry evergreen forest to mixed deciduous forests at ca 300 m altitude. Flowering: June–July.

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Figure 1. *Damrongia cyanantha* Triboun: A. habitat in Klong Lan waterfall; B. habit, C. inflorescences with flowers and D. flower and young buds.