



## *Cayratia emarginata* (Vitaceae), a new species from Thailand and Vietnam

A. Trias-Blasi<sup>1\*</sup>, J.A.N. Parnell<sup>1</sup>, K. Chayamarit<sup>2</sup>, A. Teerawatananon<sup>3</sup>

### Key words

*Cayratia*  
new species  
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Vitaceae

**Abstract** The new species *Cayratia emarginata* is validly published. A latin diagnosis, a full description and an illustration are provided. Diagnostic characters for this species are 3-foliolate leaves, farinose hairless petals and a cuspidate leaf apex.

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### INTRODUCTION

De Loureiro (1790) published the genus *Columella* based on the type species *Columella pedata* Lour. Later, *Columella* was renamed *Cayratia* by De Jussieu (1818) so as to distinguish it from two other similarly named genera. Planchon (1887) treated *Cayratia* under *Cissus* L. sect. *Cayratia* while Gagnepain (1911) finally considered *Cayratia* and *Cissus* as separate genera.

*Cayratia* is a tropical and subtropical genus distributed in Asia, Africa, Australia and the Pacific Islands, comprising 63 species (Wen 2007). In Thailand it contains 6 species, none of them endemic.

During the preparation of the account of Thai Vitaceae for the Flora of Thailand the first author came across two specimens identified by the late Prof. Li as *Cayratia emarginata*; two additional specimens collected during a fieldtrip in 2007 were later identified as the same species. After much literature research and specimen examination, the first author realised that neither formal description of this species had been published, nor were the specimens conspecific with any other described species. Thus the first description and illustration of *Cayratia emarginata* is provided here.

***Cayratia emarginata*** Trias-Blasi & J.Parn., sp. nov. — Fig. 1

Species *Cayratia trifolia* (L.) Domin affinis, ab affinibus differt petala farinosus pilis omnia destituta et folia apice cuspidatus. — Typus: A.F.G. Kerr 10924 (holo P; iso BK, BM, K, L), Sam Roi Yawt [= Sam Roi Yot], Prachuap Khiri Khan Province, South-Western Region, Thailand, 7 Nov. 1926.

Herbaceous climber. *Stem* cylindrical, 1–3 mm diam, branched, hairy with soft villous hairs to 1 mm long, ridged; tendrils 2–3-furcate, slender, wiry, leaf-opposed, cylindrical, peduncle straight, 1.5–4 cm by 0.5–1 mm, then bifurcating and coiling for 2–7 cm, hairy as stem. *Leaves* 3-foliolate, alternate; petiole 1–3.5 by

c. 1 mm, hairy as stem, central petiolule 0.5–1.5 cm long, lateral petiolules 0.3–0.7 mm long, hairy as stem; central leaflet blade oval to ovate, 3–6 by 1.5–3 cm, base truncate to subauriculate; lateral leaflet blades semi-cordate, 3–5 by 2–2.5 cm, base oblique to cordate; margin deeply dentate with triangular teeth to 4 by 5 mm, apex cuspidate; adaxial and abaxial sides hairy with appressed hairs to 1 mm long, veins protruding, 1 main basal vein, 6 pairs of secondary veins. *Inflorescence* ramified, axillary, mostly dividing dichotomously, corymbose, 1–2 cm long; peduncle 3.5–4 cm by c. 1 mm, hairy as stem, pedicel 1.5–2 mm long, puberulent with hairs to 0.1 mm long. Buds globose to ovoid, 1.5–2 by 1–1.5 mm. *Calyx* cupuliform, entire, margin sinuate, c. 0.5 by 1.5 mm, hairy as pedicel. *Petals* 4, ovate, 2–2.3 by 1–1.5 mm, apex cucullate, farinose, hairless. *Stamens* 4; filaments flattened, broadening at the base, c. 1.3 mm long; anthers elliptic, medifixed, c. 0.8 mm long. *Ovary* adnate to the disc; disc with 4 distinct lobes, cupulate, 0.5–1 by c. 1.5 mm, glabrous. *Style* conical, c. 0.8 mm long; stigma inconspicuous. *Fruit* unavailable.

**Distribution** — Thailand and Vietnam. A disjunct distribution, not yet collected in Cambodia, Laos and E/SE Thailand.

**Habitat & Ecology** — Growing on limestone at ≤ 50 m. Flowering in July.

**Specimens examined.** THAILAND, Prachuap Khiri Khan, Sam Roi Yawt, 7 Nov. 1926, A.F.G. Kerr 10924 (BK, BM, K, L, P); Trang, Subdistrict Lam-pura, Tham i-so, 8 Apr. 2007, A. Trias Blasi 35 (BKF, TCD); Sa Kaeo, Khao Tangok, trail to the top, 24 Apr. 2007, A. Trias Blasi 52 (BKF, TCD). — VIETNAM, Cochinchine, mont Dinh, près de Ba Ria, Pierre 4353 (P).

**Notes** — *Cayratia emarginata* is morphologically closest to *C. trifolia*. However, they can be easily distinguished because *C. emarginata* has farinose hairless petals and a cuspidate leaf apex, while *C. trifolia* has slightly to densely puberulent petals and an acute leaf apex.

Generally in Thai *Cayratia* the habit type seems to be correlated with seed morphology. Thus, species with herbaceous habit have seeds with an adaxial side with 2 faces and lack a deep cavity and occluding membrane, while species with a woody habit have seeds with their adaxial side possessing a cavity occluded by a membrane. Although no *C. emarginata* seeds have been seen, it is likely that if this character correlation is maintained, this species has seeds with an adaxial side with 2 faces and no cavity.

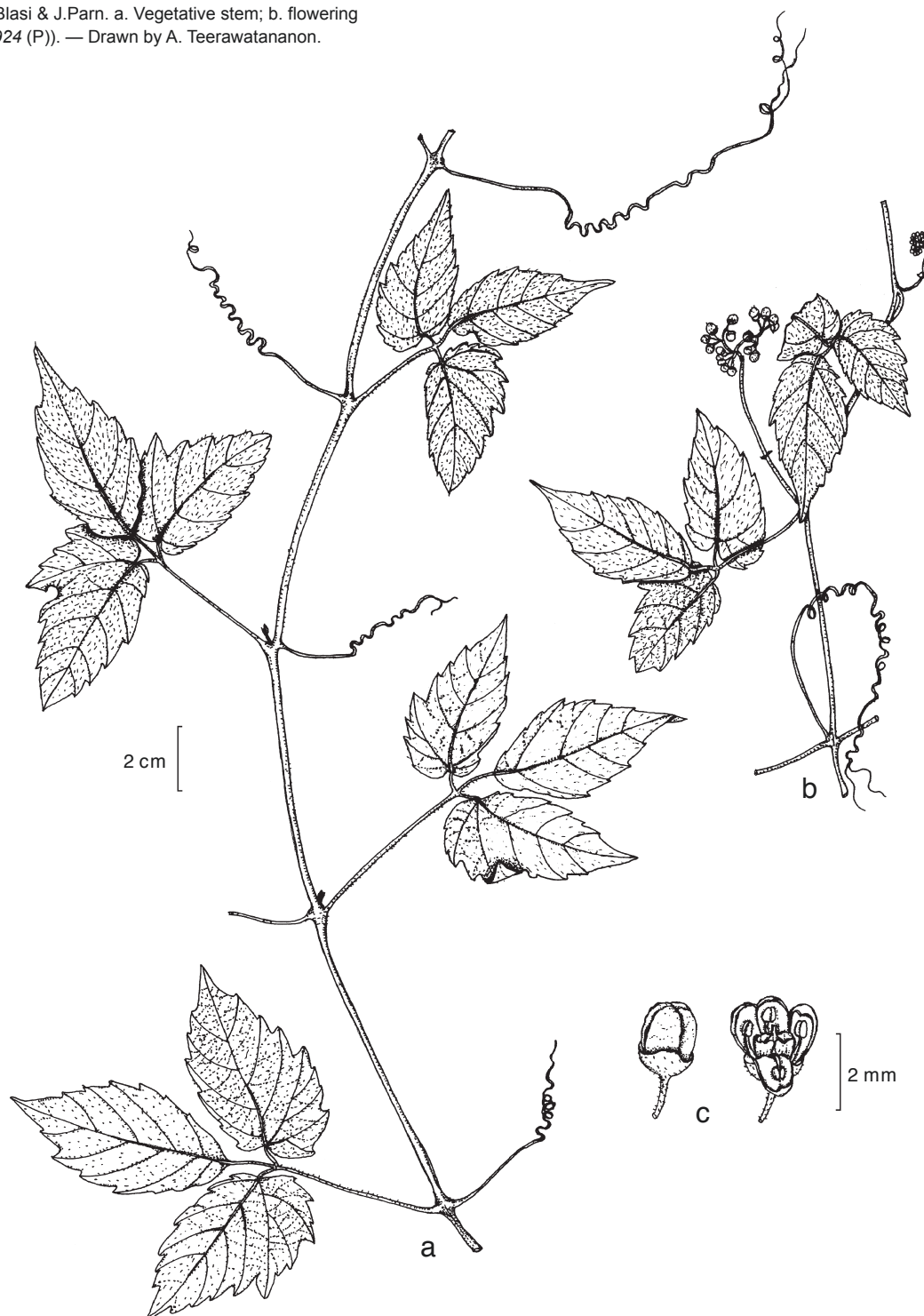
<sup>1</sup> Herbarium, Department of Botany, School of Natural Sciences, Trinity College Dublin, University of Dublin, Dublin 2, Ireland.

\* Current address: Herbarium, Library, Art & Archives, Royal Botanic Gardens, Kew, Richmond, Surrey, TW9 3AE, United Kingdom; corresponding author e-mail: triasbla@tcd.ie.

<sup>2</sup> Queen Sirikit Botanic Garden, P.O. Box 7, Mae Rim, Chiang Mai 50180, Thailand.

<sup>3</sup> Thailand Natural History Museum, National Science Museum, Technopolis, Pathum Thani 12120, Thailand.

**Fig. 1** *Cayratia emarginata* Trias-Blasi & J.Parn. a. Vegetative stem; b. flowering stem; c. flowers (all A.F.G. Kerr 10924 (P)). — Drawn by A. Teerawatananon.



The specimen collected in the Sa Kaeo province, had a sticky secretion on the stems. In addition, all of the specimens examined grow in limestone terrain.

We have used as a holotype the duplicate of the specimen held in P, because it contains flowers and is a good representative of the species. This specimen was previously identified as *Cayratia mollissima*. It can be easily differentiated from it because *C. emarginata* has a herbaceous habit and its leaves are generally much smaller (3–6 by 1.5–3 cm), while *C. mollissima* has a woody habit and bigger leaves (7–20 by 2.5–10 cm).

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