

## *Colona rivularis* (Malvaceae), a new species from Thailand

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### ABSTRACT

*Colona rivularis*, a new species from North-Eastern and Eastern Thailand is described and illustrated.

KEYWORDS: Eastern Thailand, floodplain, Grewioideae, North-Eastern Thailand, Tiliaceae.

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### INTRODUCTION

This new woody climber was discovered during plant collecting trips to North-Eastern and Eastern Thailand between June 2013 and September 2018. The plants were found along streams, riverbanks and floodplain areas.

*Colona* Cav. (Malvaceae), first described by Cavanilles (1797), is a genus of shrubs, trees and occasionally woody climbers. It belongs to the subfamily Grewioideae and is distributed in southern China through Malaysia and the Philippine Islands to New Guinea and the eastern Pacific Islands (Bayer & Kubitzki, 2003). Two species were recognised in the Flora of British India (Masters, 1874), two in the Forest Flora of British Burma (Kurz, 1877), five in Flore Générale de l'Indo-Chine (Gagnepain, 1910), and four in the Flora of the Malay Peninsula (Ridley, 1922). In all accounts the species were treated under *Columbia* Pers., now considered a synonym of *Colona*. Twelve species were recognised under *Colona* in a revised version for Indochina (Gagnepain, 1945), and two in the Flora of China (Tang *et al.*, 2007). An account of *Colona* for Thailand was done by Phengklai (1993) under the family Tiliaceae, in which seven species were recognised.

After a careful examination of the relevant literature and herbarium collections, the *Colona* species from North-Eastern and Eastern Thailand does not match any of the other known species in the genus and is described and illustrated here as a species new to science.

### DESCRIPTION

***Colona rivularis* Suddee, Poopath & Rueangr., sp. nov.**

Differs from the other *Colona* species by the climbing habit when fully grown, the symmetrical leaf bases, and the fruits with narrow wings which are less than 3 mm wide. Type: Thailand. Bueng Kan, Seka District, Chet Si waterfall, 219 m alt., 13 June 2013, fl., Suddee, Trisarassri, Puudjaa, Rueangruea, Kiewbang, Hemrat & Pansamrong 4502 (holotype **BKF!**; isotypes **AAU!**, **BK!**, **BKF!**, **K!**, **TCD!**). Figs. 1 & 2.

Shrub to woody climber, 3–10 m long when fully grown. *Stem* rounded; branchlets brown, stellate pubescent. *Leaves* oblong-lanceolate, 5–15 by 2.5–4.5 cm, apex acuminate, base obtuse to slightly cordate, symmetrical, margin serrate, chartaceous,

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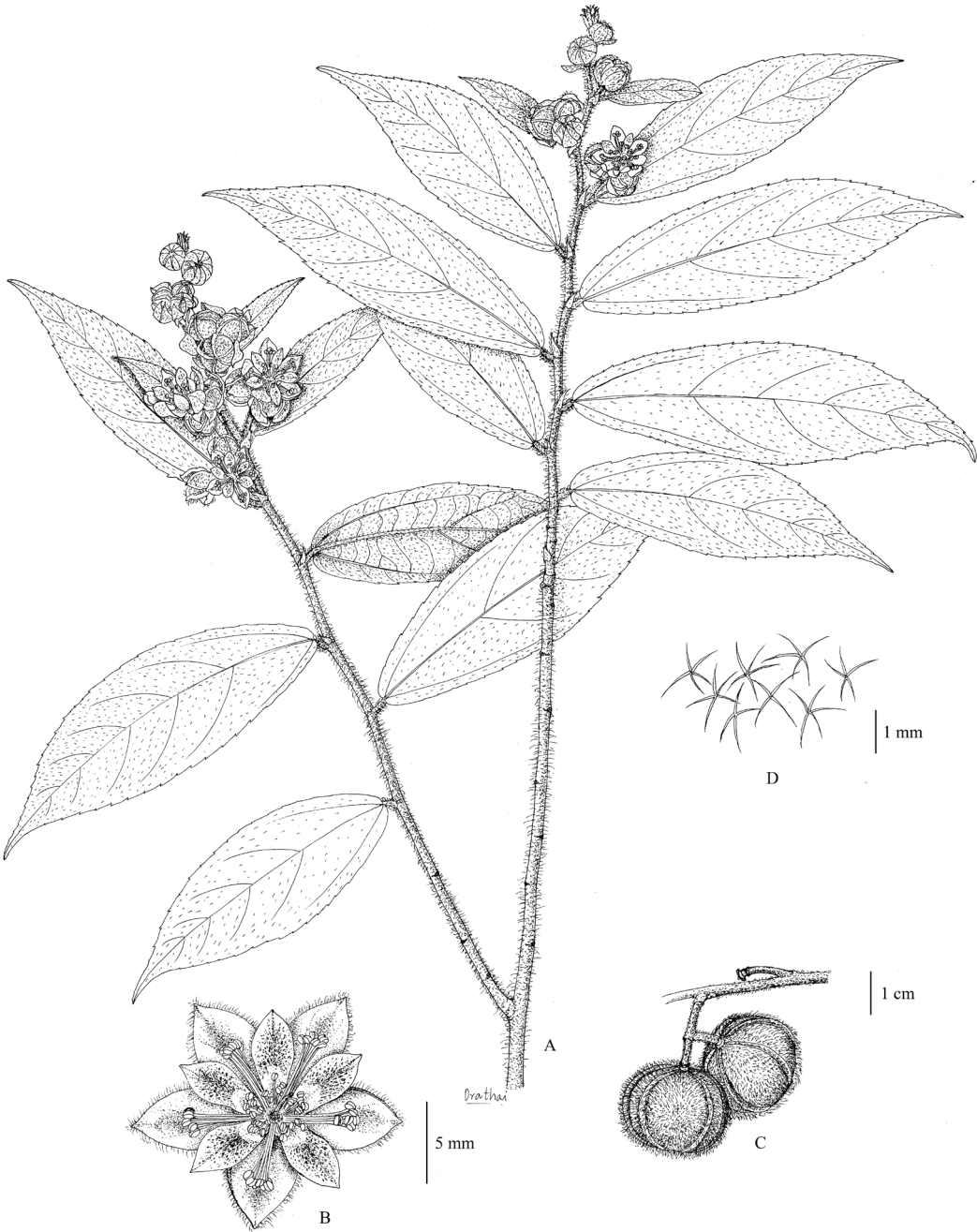


Figure 1. *Colona rivularis* Suddee, Poopath & Rueangr.: A. Flowering branch; B. Flower; C. Fruits; D. Stellate hairs. Drawn by O. Kerdkaew.



Figure 2. *Colona rivularis* Suddee, Poopath & Rueangr.: A. Upper surface of leaves; B. Lower surface of leaves; C. Flowering branch; D–E. Flowers; F. Flower showing petals. G–H. Fruits. I. Cross section of fruit. J. Longitudinal section of fruit. A–E. by S. Rueangruca, F–J. by P. Karaket.

subglossy dark green above, dull light green below, stellate pubescent on both surfaces, more densely so below; basal veins 3; secondary veins 3–6 on each side; scalariform veins and veinlets distinct and raised below; petioles 1–5 mm long, stellate pubescent; stipules early caducous, lanceolate, 3–7 mm long, stellate pubescent on both surfaces. *Inflorescences* terminal and axillary, 1–2 cm long; cymes 3-flowered; involucre bracts 3-lobed, 1.2–1.3 cm long; lobes lanceolate, stellate pubescent outside, minutely puberulent inside. *Flower* buds ovoid to subglobose, 4–5 mm in diam., with 5 longitudinal ridges, stellate pubescent. *Sepals* oblong to ovate-lanceolate, 11–12 by 4–5 mm, pinkish-purple inside, with median longitudinal groove, pubescent, green outside, speckled red, stellate tomentose. *Petals* yellow, speckled red, spatulate, 6.5–7.5 by 2.5–3 mm, shorter than sepals, subglabrous inside except the hairy basal patch, pubescent outside with glandular hairs and heart-shaped red spot at base. *Stamens* ca 50, in 5 bundles, each bundle arranged in two series, the longer and the shorter, the longer ones nearly as long as petals, borne on short androgynophore. *Ovary* stellate tomentose, 5-locular; stigma apiculate. *Fruits* ovoid to subglobose, 1.5–2.5 cm in diam., stellate hairy, 5-winged; wings 1.2–2.5 mm wide.

Thailand.— NORTH-EASTERN: Bueng Kan [Bung Khla Distr., floodplain area, 170 m alt., 5 Aug. 2015, fl. & fr., Middleton *et al.* 5917 (BKF, SING); Bung Khla Distr., Phu Wua Wildlife Sanctuary, Chet Si waterfall, 219 m alt., 13 June 2013, fl., Suddee *et al.* 4502 (AAU, BK, BKF, K, TCD); *ibid.*, 10 Oct. 2013, old fr., Suddee *et al.* 4604 (BKF)]; Sakon Nakhon [Akat Amnuai Distr., along road no. 2033 near Akat Amnuai town, 138 m alt., 17 May 2017, fl., Poopath *et al.* MP-FP 229 (BKF); *ibid.*, 20 June 2017, fl. & fr., Poopath *et al.* MP-FP 231 (BKF)]; Nakhon Phanom [Na Thom Distr., Ban Don Toei, 147 m alt., 16 May 2017, str., Poopath *et al.* MP-FP 221 (BKF); Sri Songkhram Distr., Sam Phong Subdistr., Ban Kae, 153 m alt., 22 June 2017, fl., Poopath *et al.* MP-FP 244 (BKF)]; Udon Thani [Ban Dung Distr., Ban Muang Subdistr., Ban Muang Pri, 155 m alt., 18 July 2017, fl. & fr., Poopath *et al.* MP-FP 257 (BKF)]; EASTERN: Yasothon [Khum Kuen Kaew Distr., Na Khum Subdistr., Ban Pak Haet, 118 m alt., 20 Sept. 2018, fr., Poopath *et al.* MP-FP 312 (BKF)].

Distribution.— Endemic to North-Eastern and Eastern Thailand.

Ecology.— Along streams with sandstone bedrock in dry evergreen forest, along river banks, open areas in lowland floodplain forest, 100–250 m alt. Flowering: April–August; fruiting: May–September.

Vernacular.— Po tham (ปอทม), po phan (ปอพาน).

Etymology.— The epithet ‘*rivularis*’ refers to its habitat, growing by watercourses.

Conservation.— This species is known from several locations in upper north-eastern Thailand. The number of individuals in each subpopulation are abundant. It is assessed here as Least Concern (LC), following IUCN Standards and Petitions Committee (2019).

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