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Croton poomae (Euphorbiaceae), a new species from Thailand

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ABSTRACT. *Croton poomae* Esser is described as a new species from North-Eastern Thailand. It has narrowly ovate, silvery leaves and comparatively large fruits.

Croton L. (Euphorbiaceae) in Thailand was studied by Airy Shaw (1972). In the course of a recent re-study for the Euphorbiaceae of Thailand Project, three new species were described (Esser & Chayamarit, 2001; Esser, 2002). Only after the publication of these novelties, collections of another undescribed species became available for study.

The first collections of this new species were made in 1998 by the author, but only in sterile condition. The narrowly ovate leaf shape and the numerous veins, very unusual among the silvery-leaved species, already suggested an undescribed taxon. But only the excellent flowering and fruiting specimens collected very recently by Rachun Pooma confirmed this status and allow the diagnosis of this novelty.

This new species is only known from a single locality (Phu Wua), but is not rare there. One tree can be found between the houses in the residential area of the Wildlife Sanctuary. Although a few Southeast Asian *Croton* species with silvery leaves are quite widespread (such as *C. kongensis* Gagnep.), many are still known from only one or very few localities, in particular among the Vietnamese taxa (such as *C. budopensis* Gagnep., *C. potabilis* Croiz.). Local endemics are therefore not unexpected.

Croton poomae Esser, **sp. nov.**

Species *Crotonis* foliis ovatis vel anguste ovatis subtus rufo-argenteis non cordatis nervis secundariis vulgo 13–16 non triplinerviis, pedicellis omnibus brevibus, et fructibus 15–17 mm longis ab aliis speciebus siamensibus et indosinensibus recedit. Type: Thailand, Nong Khai, Bungkhla, Phu Wua Wildlife Sanctuary, Nature trail from Headquarter, alt. 200 m, 27 Aug. 2001 (fr), *R. Pooma, W.J.J.O. de Wilde, B.E.E. Duyfjes, V. Chamchumroon & K. Phattarahirankanok* 2774 (holotypus BKF; isotypi A, BKF, L). Fig. 1.

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Tree to ca. 10 m tall, unbranched at base, apical branching mostly verticillate; young branchlets densely pubescent. *Indumentum* consisting of stellate-lepidote to dentate-lepidote hairs, hyaline with small brown center (on leaves, appearing mostly silvery) or brownish throughout (on leaf venation below, shoot apex, flowers and fruits), flat, 0.2–0.4 mm in diam., with ca. 15–25 slightly to partly fused radii. *Stipules* (3–)8–12 mm long, pubescent. *Leaves* alternate; petiole 3–17 cm long, densely pubescent; blade (narrowly) ovate, 15–28 by 5–8.5 cm, index 2.1–3.3, chartaceous, base obtuse with the very base slightly cordulate, margin entire, apex acute-acuminate, soon glabrous above, below densely and completely silvery-pubescent without visible surface and not glabrescent, scattered reddish-brown hairs on the whole surface and in particular on the venation which is therefore of different colour; basal glands flat, sessile, ca. 0.75 mm in diam., lateral on the midrib base, marginal glands absent; side veins 13–16 pairs below the apex, not to very slightly triplinerved, distinct on both sides, tertiary veins visible on both surfaces, percurrent, smaller veinlets hardly visible. *Inflorescences* terminal, often several in an apical whorl, densely pubescent and appearing creamish-brown, 3–13 (–20) cm long, bisexual with 2–7 pistillate flowers at base, all bracts unisexual and with 1 flower; bracts ca. 1–1.5 mm long, eglandular, quite persistent. *Staminate flowers* densely pubescent outside; pedicel ca. 1 mm long; sepals ovate-elliptic, 3 by 1.5–2 mm; petals similar to sepals, ciliate; stamens 10–11, the anthers 1–1.2 mm long, filaments ca. 2 mm long. *Pistillate flowers* densely pubescent outside; pedicel very short, less than 0.5 mm long; sepals 5 by 1.5 mm, distinctly longer than the ovary, slightly fused at base; petals obviously absent; ovary ca. 3 mm long; stigmas 2–3 mm long, deeply bifid. *Fruits*: pedicel 1–2 mm long; sepals 5–6 by 1.5 mm, persistent; schizocarp 15–17 mm long, globose, not sulcate, brownish pubescent, smooth. *Seeds* 9.5 by 6.5 mm, flattened-ellipsoid, brown, caruncle not seen.

Thailand.— NORTH-EASTERN: Nong Khai, Bungkhla, Phu Wua Wildlife Sanctuary, Residential area at Headquarter, alt. 200–300 m, 14 Oct. 1998 (sterile), *Esser* 98-149 (A, BKF, CMU), 16 Oct. 1998 (sterile), *Esser* 98–166 (BKF, L); Phu Wua, 03 May 2002 (fl), *Pooma, Chamchumroon, Koonkunthod & Chantaboon* 3432 (A, BKF, L).

Distribution.— Endemic? To be expected in Laos.

Ecology.— In disturbed dry evergreen dipterocarp forest in association with *Dipterocarpus costatus*, *Parashorea*, *Shorea thorelii* and *Vatica odorata*, over sandstone, locally common. Altitude: ca. 200–300 m. Flowering in May, fruiting in August.

Notes.— This species differs from all silvery-leaved species of *Croton* in Southeast Asia by the long, narrowly ovate and hardly triplinerved leaves with numerous veins. In other vegetative characters (such as the indumentum and ovatish leaf shape), it is most similar to *C. sepalinus* Airy Shaw from Thailand, *C. potabilis* Croiz. from Vietnam, and *C. adumbratus* Croiz. from Malaysia. All of these species have shorter leaves with less than 10 pairs of side veins and much smaller fruits (4–7 mm long).

The recently described *Croton kongkandanus* Esser (Esser, 2002) differs by, e.g., larger fruits 22–25 mm long, and hardly ovate, shorter leaves with less numerous (8–10 pairs of) veins. *C. argyratus* Blume has an identical fruit size of c. 15 mm, but is Malesian and not known from north of the Peninsula, and differs also by shorter (index 1.5–2.3),

hardly ovate leaves with a usually distinctly cordate base and hardly brownish hairs on the leaves, and by longer, 12–25 cm long inflorescences with longer pedicels (4–6 mm long in both sexes).

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Figure 1. *Croton poomae* Esser: A. Habit of flowering branch; B. detail of lower leaf base with indumentum; C. staminate flower; D. pistillate flower; E. infructescence; F. mericarp of fruit, ventral view; G. seed. A-D from *Pooma et al*. 3432, E-G from *Pooma et al*. 2774.

Figure 2. *Croton poomae* Esser: A. flowering branch (after *Pooma et al*. 3432); B. fruiting branch (after *Pooma et al*. 2774). Photos by R. Pooma.