

A New Species of *Curcuma* L. (Zingiberaceae) from Southeast Asia

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Abstract

Curcuma larsenii C. Maknoi & T. Jenjittikul, *sp. nov.* from Southeast Asia (Thailand, Laos and Vietnam) is described and illustrated.

Introduction

The genus *Curcuma*, established by Linnaeus in 1753, comprises approximately 100 species (Škorníčková *et al.*, 2003a). In recent years, several new species have been described, for example by Sirirugsa and Newman (2000), Mood and Larsen (2002), Škorníčková *et al.* (2003a, 2003b and 2004), as a result of extensive exploration in South and Southeast Asia.

While revising this genus for Flora of Thailand between 2002 and 2003, the first author found some unidentified specimens that did not match any known species. One of them was collected in Ubon Ratchathani Province, vegetatively similar to *C. gracillima*. However, it was reported by the second author in 2001 that this species was being sold in Chatuchak Market in Bangkok which was collected from the same province. This species seems to be becoming known as ornamental plants in the market. Therefore, it is described here as *Curcuma larsenii* C. Maknoi & T. Jenittkul.

Curcuma larsenii C. Maknoi & T. Jenjittikul, *sp. nov.*

Curcuma larsenii Maknoi & Jenjittikul *sp. nov.*, *C. gracillimae* Gagnep. *characteribus vegetativis et inflorescentiae simulans, sed characteribus sequentibus differt: foliis latioribus; bracteis majoribus; apice staminodii acuto, non truncato; lobis labelli rectangularibus, apicibus truncatis, irregulariter*

erosis. – **Typus:** *C. Maknoi* 496, Ban Sanamchai, Piboon Mangsahan, Ubon Ratchathani, 26 Aug 2003 (holo, PSU; iso, AAU, BKF, QSBG). **Figure 1 and Plate 1.**

Perennial herb, 25–30 cm tall. *Vertical underground structure* ovoid, 2–3 cm in diameter, yellowish inside. Bladeless sheaths 2–3, 1–6.5 cm long, pale yellow, green or dull red with red veins, apex acute or with a minute beak. **Leaves** 2–4; sheath up to 4 cm long, glabrous; petiole furrowed, 5–7 cm long, glabrous; ligule c. 1 mm long, membranous, glabrous, truncate; blade lanceolate, 20–25 x 3–5 cm, green, sometimes with a purple midrib, glabrous on both surfaces, except for few short hairs at the tip, base attenuate, apex acute. Inflorescence terminal; peduncle green, 5–10 cm long, glabrous; spike elliptic to elliptic-oblong, 4–6 x 2.5–3 cm; fertile bracts 7–15, obovate, 15–20 x 18–25 mm, subtending cincinnus of 5–7 flowers, glabrous, green with a white margin, apex truncate, recurved; coma bracts 3–5, smaller and narrower, white or green with white stripes at apex. Bracteole broadly ovate, concave, 4.5–6.5 x 3.5–5.0 mm, white, membranous, glabrous. Flowers 20–25 mm long, exerted from the bract. Calyx funnel-shaped, 4–6 mm long, white, glabrous, apex unequally 3-lobed. Corolla tube 10–14 mm long, white, glabrous; corolla lobes 4.5–5.2 x 2.5–3 mm; dorsal one concave, white or pale yellow, apex hooded, shortly cucullate; lateral ones shallowly concave, white or pale yellow, apex obtuse. Stamines oblong, spreading, 4.5–6.5 x 1.8–2.3 mm, creamy white to dark orange with translucent veins, red streak along margin near labellum, sparsely hairy at base, apex acute, margin eroded. Labellum broadly obovate, 5.5–6.5 x 6.0–7.5 mm, deeply divided, 2.5–3.5 mm deep, broad sinus, creamy white to dark orange with translucent veins, longitudinal red-streaked on the lower half, raised-band on either sides of sinus creamy white or yellow; lobes c. 2 mm wide, oblong, apex truncate with irregularly eroded. Filament c. 2.5 x 2 mm, white, glabrous. Anther c. 2.0 x 1.5 mm, white, pilose near the base; spurs absent; crest 1 mm long, apex shallowly emarginate. Ovary tri-loculed, oblong, c. 3 x 2.5 mm, white, glabrous; epigynous glands absent; stigma appressed cup-shaped, 0.6 mm wide, mouth serrulate. Fruits subglobose, 1 cm diam., white; seeds obovate, 3.5 mm long, brown with white aril.

Distribution: Thailand – Ubon Ratchathani; Laos and Vietnam.

Flowering period: May to October.

Ecology: In open forest in moist sandy areas.

Other specimens examined: Eastern Thailand – *Larsen* 47387, plant from Ubon Ratchathani, cultivated in Aarhus, 8 Oct 2001 (AAU!); *Ngamriabsakul* 67, Suan Pa Buntharik, Ubon Ratchathani, 5 Aug 1999



Figure 1. *Curcuma larsenii*. a) whole plant; b) flower with bracteole at base; c) bracteole; d) calyx and ovary; e) dorsal corolla lobe; f) lateral corolla lobes; g) staminodes and stamen; h) labellum (scale a = 5 cm; b – h = 5 mm). Drawings made by the first author from the type specimen.

(BKF! E!); *Tiptabiankarn* 6604, Ubon Ratchathani, 29 May 2001 (PBM!); Laos – *Maxwell* 98-896, Khong Island, E side, base to the summit of Khong Hill, Mae Khong river, Champasak, 11 Sep 1998 (CMU!); Vietnam – *Evrard* 2324, 3 Jul 1929 (P!); Madris, km 97 route to Saigon, 21 Oct 1920 (P!).

Notes: This species is similar to *Curcuma gracillima* Gagnep. in vegetative and inflorescence characteristics but differs by the following characters: leaves broader, bracts larger, staminode apex acute instead of truncate, labellum lobes rectangular, apex truncate with irregularly eroded, staminodes and labellum creamy white to orange with translucent veins, red streaks on the

lower half and creamy white or yellow raised mid-band (table 1).

Table 1. Comparison of key characters of *C. larsenii* and *C. gracillima*.

Character	<i>C. larsenii</i>	<i>C. gracillima</i>
Leaf width	30-50 mm	8-12 mm
Bract size	15x20 mm	12x12 mm
Corolla tube	10 mm	5-6 mm
Staminode apex	Acute	Truncate
Staminodes and lip color	Creamy white to orange with red streaks and yellow mid-band	Violet
Labellum lobes shape	Oblong, apex truncate, margin irregular eroded	Obliquely obovate, apex acute

This species is named in honor of Professor Kai Larsen who initiated the research of Zingiberaceae in Thailand over 40 years ago.

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