

## A NEW SPECIES OF *CAULOKAEMPFERIA* (*ZINGIBERACEAE*) FROM THAILAND

P. SUKSATHAN\*† & P. TRIBOUN\*‡

The new species *Caulokaempferia larsenii* (*Zingiberaceae*) from northern Thailand is described and illustrated.

*Keywords.* *Caulokaempferia*, new species, Thailand, *Zingiberaceae*.

### INTRODUCTION

*Caulokaempferia* K. Larsen (*Zingiberaceae*) is a small genus of c.10 species (Mabberley, 1997; Larsen *et al.*, 1998). Its members are distributed from the Himalaya to continental SE Asia with a distinct centre of diversity in Thailand, where five species are recorded (Larsen, 1996). In October 2000, the first author collected plants at Doi Phe Pan Nam, on the border of Chiang Mai and Chiang Rai provinces. He found an unknown *Caulokaempferia* growing commonly along the mountain ridge. Unfortunately, there were no flowers, only old opened capsules. In August two years later, we returned to the same place and every plant we saw was in flower.

### ***Caulokaempferia larsenii* Suksathan & Triboun, sp. nov. Fig. 1.**

Species nova *C. saksuwaniae* K. Larsen affinis a qua differt statura majori, foliis late lanceolatis, apice calycis bilobato, lobis dorsalibus corollae ad apicem ecarinatis, labello magno subrotundato vel late depresso obovato, pistillo quam antheris breviori et non inter eas inserto.

Type: Thailand, Chiang Mai (Doi Phe Pan Nam), exposed dry ridge, 1720m, 22 vii 2002, *Suksathan, Triboun & Wongnak* 3429 (holo. QBG; iso. AAU, BK, BKF, E, K).

Herb with short rhizome and vigorous storage roots c.5mm diameter. *Pseudostem* erect, 20–45cm, glabrous, with 2–6 bladeless leaf sheaths. *Ligule* 6–9mm long, entire or shallowly 2-lobed, apex rounded or apiculate. *Leaves* coriaceous, (3–)5–9, sessile, broadly lanceolate, (5.0–)7.0–10.2 × 2.0–2.6cm, acuminate, base cuneate to slightly cordate, glabrous on both surfaces. *Inflorescence* 5.5–8.0cm long; bracts (4–)5–8,

\* Herbarium, Department of Systematic Botany, Institute of Biological Sciences, University of Aarhus, Building 137, Universitetsparken, DK-8000 Aarhus C, Denmark.

† Now at: Herbarium, Queen Sirikit Botanic Garden (QBG), Mae Rim, Chiang Mai 50180, Thailand.

‡ Now at: Bangkok Herbarium (BK), Department of Agriculture, Bangkok 10900, Thailand.

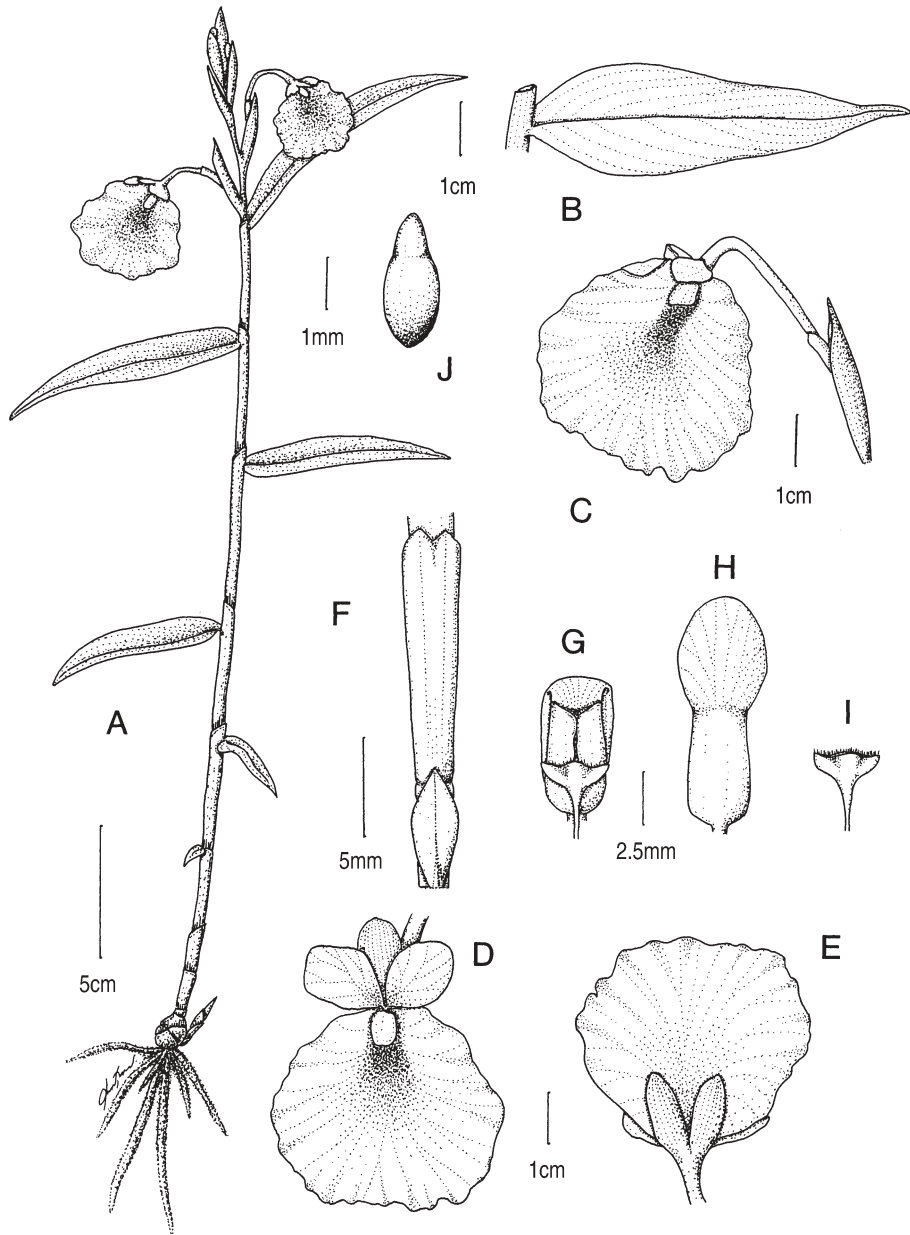


FIG. 1. *Caulokaempferia larsenii* Suksathan & Triboun. A, habit; B, leaf with ligule; C, flower and bract; D, dorsal corolla lobe, labellum and staminodes; E, labellum and lower corolla lobes; F, bracteole and calyx; G, anther and stigma; H, anther with crest; I, style and stigma; J, seed. Drawn from the holotype (Suksathan, Triboun & Wongnak 3429, QBG).

green, ovate-oblong, 22–33 × 9–13mm, acute to acuminate, margin translucent. *Bracteoles* elliptic to obovate-oblong, 5.0–10.0 × 2.6–5.0mm, translucent with prominent midvein, apex acute or slightly emarginate. *Flowers* entirely yellow, rarely cream-coloured, 1–2(–3) per bract. *Calyx* tubular, 15–20 × c.2.5mm, translucent, split down one side to about half way; apex shallowly bilobed. *Corolla* lobes oblong; dorsal lobes 13–16 × 7–8mm, obtuse to apiculate; lateral lobes narrower, 11–16 × 5–6mm, acute. *Staminodes* projecting forward, not recurved, broadly obovate, slightly angular, 12–17 × 9–11mm, apex rounded. *Labellum* rotund to broadly depressed obovate, 28–38 × 32–41mm, margin erose. *Filament* c.0.5mm long. *Anther* oblong, c.5.2 × 4.2mm, glabrous; anther crest elliptic, 5.5–6.0 × 4.0–5.0mm, entire, reflexed. *Pistil* shorter than stamen, not inserted between anther sacs; style linear, c.2.8mm long; stigma very shallowly obtriangular, reddish, c.2.8mm wide, ciliate. *Ovary* unilocular, c.2mm long. *Fruit* an ellipsoid, glabrous, green, fleshy capsule, 10–13 × 0.3–0.4mm, opening by a wide oval slit. *Seeds* narrowly pyriform, glabrous, light brown, c.2.3 × 1mm. Fl. July–August. Fr. September–October.

*Additional specimens examined.* THAILAND. Chiang Mai (Doi Phe Pan Nam), dry rocky slope, 1600m, 30 x 2000, *Suksathan* 2867 (QBG); same locality, 29 ix 2001, *Watthana* 1407 (QBG).

*Distribution.* Thailand, Chiang Mai province (Doi Phe Pan Nam); known only from the type locality.

*Ecology.* Exposed, dry, gravelly rock surface of granitic origin in montane scrub vegetation, dominated by *Quercus* spp., *Rhododendron surasianum* Balf.f. & Craib, *R. arboreum* Sm. subsp. *delavayi* (Franch.) Chamb., *Lyonia ovalifolia* (Wall.) Drude, and *Michelia* spp. at 1600–1750m alt. Locally common.

*Caulokaempferia larsenii* has the largest flower among the yellow-flowered species. It is also very easily recognized by its erect stem to 45cm and leathery leaves.

The species is named in honour of Professor Kai Larsen, the Danish expert who established this genus and has been working on Thai *Zingiberaceae* for more than 30 years.

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