

## *Dendrobium chrysocrepis* (Orchidaceae), a new record for Thailand

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### ABSTRACT

In this paper we report the first confirmed find of *Dendrobium chrysocrepis* in Thailand. A morphological description, line drawing and colour plate are presented (all based on Thai material), and some background information on the globally rare species is provided.

KEYWORDS: *Dendrobium moschatum*, Epidendroideae, northern Thailand.

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### INTRODUCTION

*Dendrobium* Sw., one of the largest orchid genera (Wood, 2006), belongs to subtribe Dendrobiinae in tribe Dendrobieae of the large subfamily Epidendroideae. It contains about 1,450 species distributed among 28 sections (Pridgeon *et al.*, 2014), 10 of which are represented in Thailand. Section *Dendrobium* is relatively large, comprising of approximately 100 species distributed from India in the west to New Guinea and Australia in the south-east and to Japan and Korea in the north-east (Lavarack *et al.*, 2000; Pridgeon *et al.*, 2014). In the latest critical revision of the Thai material, 53 species were accepted in groups currently referred to sect. *Dendrobium*. Thus, Seidenfaden (1985) accepted 36 species in sect. *Dendrobium s.s.*, nine species in sect. *Callista* and eight in sect. *Breviflores*; the two latter infrageneric taxa, however, are now included in sect. *Dendrobium* (Pridgeon *et al.*, 2014).

One of the least known species in sect. *Dendrobium* is *D. chrysocrepis* C.S.P.Parish & Rchb.f.

ex Hook.f. The original description was based on material from Myanmar, provided by Charles Parish – a chaplain who made numerous plant collections in the wider surroundings of Mawlamyine from 1852 and the following 25 years (Clayton, 2017). In contrast to many other orchids imported to Europe in the 1800s, *D. chrysocrepis* has remained exceedingly rare in cultivation (Wood, 2006: 489), and very few observations of the species in the wild have been made since its discovery. Recent records from Yunnan (Jin & Li, 2006 [sub syn. *D. menglaensis* X.H.Jin & H.Li]; Li *et al.*, 2009; Xu *et al.*, 2010: 321) have demonstrated that *D. chrysocrepis* has a much wider distribution than previously assumed – and thus raised the hope that the rare species might also occur in Thailand. Against this background, it was gratifying, but not totally unexpected, when the first unequivocal find of *D. chrysocrepis* in Thailand was made during field work targeting *Dendrobium* sect. *Dendrobium* in May 2017.

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## DESCRIPTION

**Dendrobium chrysocrepis** C.S.P.Parish & Rchb.f. ex Hook.f., Bot. Mag. 98: t. 6007. 1872; Hook.f., Fl. Brit. India 5: 744. 1890; B. Grant, Orchids Burma: 77. 1895.— *Callista chrysocrepis* (C.S.P.Parish & Rchb.f. ex Hook.f.) Kuntze, Revis. Gen. Pl. 2: 654. 1891. Type: Mawlamyine, Myanmar, March 1871, Parish 309 (holotype **K!** [K000943862]).

— *D. menglaense* X.H.Jin & H.Li, Ann. Bot. Fenn. 43: 296. 2006; G.G.Zhu, Z.H.Ji, J.J.Wood & H.P.Wood in Z.Y.Wu *et al.* (eds), Fl. China 25: 385. 2009. Figs. 1–2.

Lithophytic herb. *Stem* subclavate, bilaterally flattened from a thin base, 10–28 cm long, ca 1 cm in diam., enclosed by persistent leaf sheaths. *Leaves* lanceolate, up to  $7 \times 1.5$  cm, apex unequally acuminate. *Inflorescences* produced on leafless stems, one-flowered; floral bract ovate, ca 2 mm long, apex acute. *Flowers* 2.5–3 cm long, yellow; pedicel and ovary ca 2 cm long. *Sepals* glabrous on both sides, 5–6 veined; dorsal sepal obovate, rounded,  $1.8\text{--}2 \times 0.8\text{--}1$  cm, 5-veined; lateral sepals at base adnate to the column, obliquely elliptic-oblong, acute to obtuse,  $2.2\text{--}2.5 \times 0.8\text{--}1$  cm, 6-veined. *Petals* obliquely obovate, obtuse to rounded,  $1.8\text{--}2 \times 0.8\text{--}1$  cm, 7-veined. *Labellum* yellowish-orange, slipper-shaped, densely pubescent on the dorsal side,  $1.8\text{--}2 \times 1.2\text{--}1.5$  cm, with incurved margin; disc rufously villous in a broad median band. *Column* yellow to light green, ca 1.2 cm long, hairy at apex; mentum short.

Thailand.—NORTHERN: Chiang Mai [Angkhang, 19 May 2017, Srisom 51 (**BKF!**, spirit collection)].

Distribution.—China (Yunnan), Myanmar

Ecology.—In Thailand, plants are found in lower montane rain forest on a limestone hill growing on mossy, humus-rich cliffs, sometimes together with *Dendrobium dantaniense* Guillaumin; 1700 m alt. Flowering: recorded in May.

Vernacular.—Ueang thung thong (เอื้องลุงทอง) (here proposed).

Note.—*Dendrobium chrysocrepis* is similar to *D. moschatum* (Buch.-Ham.) Sw. but differs in having smaller, bright yellow, solitary flowers on bilaterally flattened stems.

In the 1990s, the appearance of a few cultivated plants, presumably of wild-collected origin and in some cases obtained from Thai dealers, was taken by some orchidologists as evidence of *D. chrysocrepis* occurring in Thailand. However, for each of the plants concerned, Seidenfaden (1996, 1997), in spite of thorough investigations, was unable to verify either the identification or a wild-collected Thai origin. Consequently, the record reported in this paper represents the first confirmed find of *D. chrysocrepis* in Thailand. The only known occurrence in Thailand apparently comprises only ca 10 individuals, making *D. chrysocrepis* an obvious candidate for the national Thai Red List.

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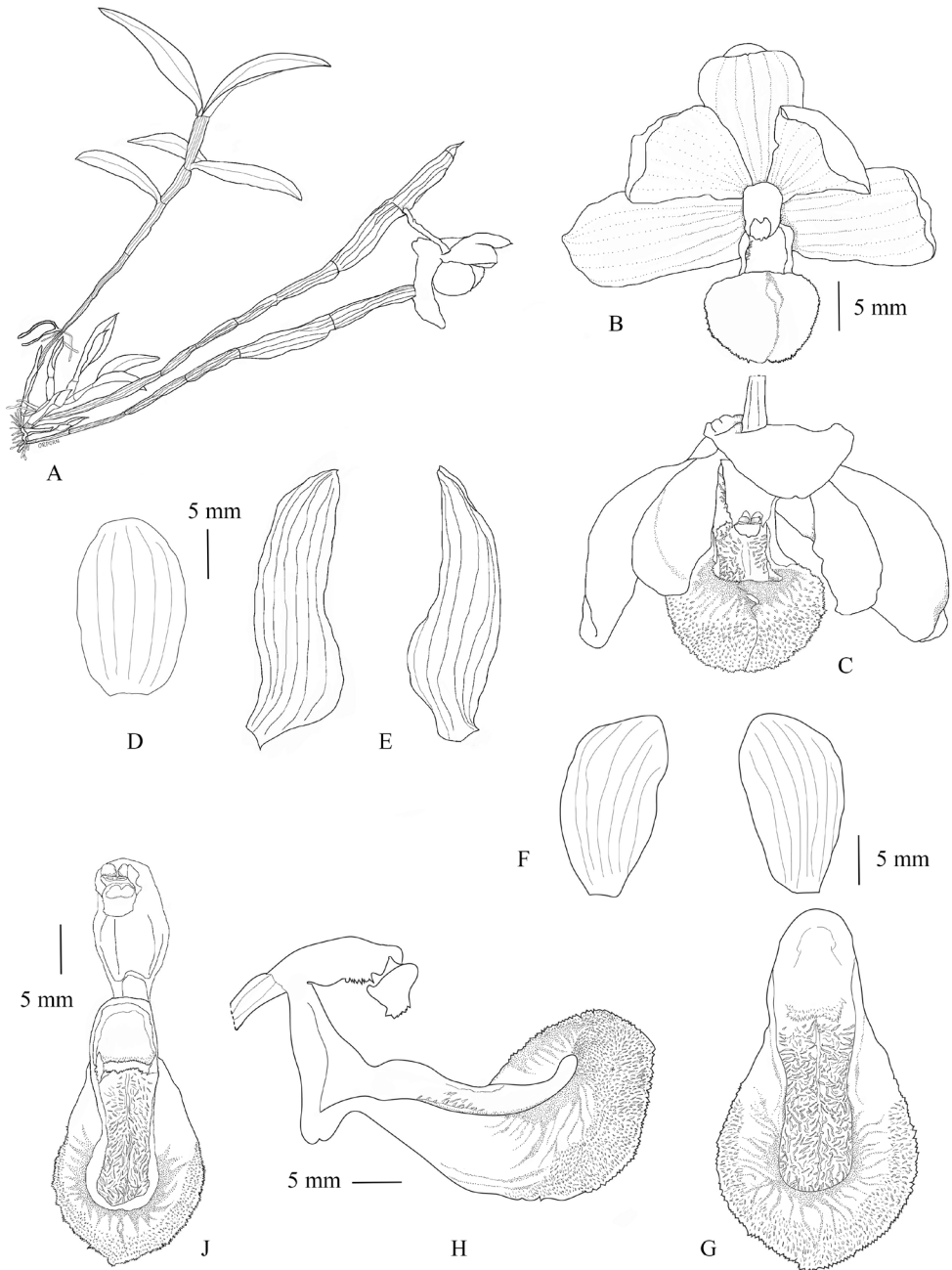


Figure 1. *Dendrobium chrysocrepis* C.S.P.Parish & Rehb.f. ex Hook.f.: A. habit; B–C. flower (front view and top view); D. dorsal sepal; E. lateral sepals (inside and outside); F. petals (inside and outside); G–H. lip (upper surface and side view); J. lip and column; Drawn by O. Phueakklai.



Figure 2. *Dendrobium chrysocrepis* C.S.P. Parish & Rehb. f. ex Hook. f.: A–B. habit; C. flower (top view); D. lip (side view); E. lip (upper and lower surfaces); Photographed by P. Srisom (A–C) and O. Phueakhlai (D–E).

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