

## ***Pholidota rubra* Lindl. (Orchidaceae), a new record for Thailand**

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**ABSTRACT.** *Pholidota rubra* Lindl. (Orchidaceae), a new record from northern Thailand, is described, illustrated and discussed. It is an epiphyte in lower montane rainforest at ca 1,250 m altitude.

**KEY WORDS:** *Pholidota rubra*, Orchidaceae, new record, Thailand.

### **INTRODUCTION**

*Pholidota* Lindl. ex Hook. belongs to the subtribe Coelogyninae, subfamily Epidendroideae (Orchidaceae), and comprises 9 sections (de Vogel, 1988; Pridgeon et al., 2005). It is a genus of 28 species distributed from Southeast Asia through Indonesia and New Guinea to Australia and the Pacific Islands (de Vogel, 1988; Seidenfaden, 1992). Seven species were recorded in Thailand based on the work undertaken by de Vogel in Leiden (Seidenfaden, 1986, 1992). The genus is characterized within the subtribe Coelogyninae by the relatively short, boat-shaped hypochile of the lip of which the sides are erect and in front usually drawn out into lobes which continue towards the back of the lip; the flowers are rather small, and the column is rather short and compact (de Vogel, 1988).

During field work in December 2007, *Pholidota rubra* Lindl. was discovered at Phu Hin Rong Kla National Park in Phitsanulok province, northern Thailand. This species belongs to *Pholidota* section *Chinenses* (Rchb.f.) de Vogel. This section is recognised by the hood of the column much overtopping the stigma and being moderately widened; the lip is thin-textured, the epichile without keels or warts, the hypochile without or with low and swollen keels. There are four species (*P. chinensis*, *P. leveilleana*, *P. roseans*, and *P. rubra*), occurring

in Sikkim, NE India, Myanmar, Vietnam, SW China to Hong Kong and Fukien (de Vogel, 1988; Pridgeon et al., 2005).

### **DESCRIPTION**

***Pholidota rubra* Lindl.**, Gen. Sp. Orchid. Pl.: 37. 1830; Hook.f., Fl. Brit. India 5: 847. 1890; B. Grant, Orchids Burma: 162. 1895; de Vogel, Orchid Monogr. 3: 48, fig. 21. 1988; Seidenf., Opera Bot. 114: 128. 1992; N. Pearce & P. J. Cribb, Fl. Bhutan 3(3): 351. 2002.— *Coelogyne rubra* (Lindl.) Rchb.f. in W. G. Walpers, Ann. Bot. Syst. 6: 238. 1861. Type: India, *Wallich s.n.* (holotype **K-LINDL**).— *Pholidota undulata* Wall. ex Lindl., Gen. Sp. Orchid. Pl.: 37. 1830.— *Coelogyne undulata* (Wall. ex Lindl.) Rchb.f. in W. G. Walpers, Ann. Bot. Syst. 6: 238. 1861. Type: India, *Wallich 691* (holotype **K**). Figs. 1–2.

Plants epiphytic, up to 35 cm high; rhizome creeping, terete, 6 mm in diam., enclosed by papyraceous scales, soon turning into caducous thin fibres. *Pseudobulb* ovoid-cylindric, bulging below the centre, tapering to both ends, 4.5–9 by 1.2–1.8 cm, base usually enclosed by papyraceous sheaths, soon turning into caducous thin fibres. *Leaves* 2 per pseudobulb, arising from pseudobulb apex, oblong-lanceolate, 20–23 by 3–4 cm, apex acuminate, base

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cuneate, lamina glossy green, somewhat coriaceous, main nerves (3–)5, prominent beneath; petiole 2.5–3 cm long, channelled. *Inflorescence* a raceme, proteranthous or synanthous, glabrous, pendulous, 12–20 cm long; peduncle 2–4 cm long, base covered with scales; rachis slender, 9.5–16.5 cm long, straight; floral bracts ovate or ovate-oblong, 3–4 by 7–9 mm, inrolled, apex acute, persistent during and after anthesis, caducous during fruit setting. *Flowers* laxly 20–42-flowered, pale orange or pinkish-orange; pedicel and ovary ca 4 mm long, angular. *Sepals* subsimilar; dorsal sepal ovate, 4–5 by 2.5–3.2 mm, apex acute, 5-nerved; lateral sepals oblique, ovate or broadly ovate, 4.5–5 by 2.5–3 mm, apex acute, 5-nerved, with a rounded keel outside along midrib. *Petals* oblong-lanceolate, 4.5–5 by 1 mm, apex obtuse, 1-nerved. *Labellum* 3-lobed, 4.5–5 by 4.5–5.5 mm, with a low rounded keel at base; mid-lobe ovate-orbicular, apex acute or apiculate, deflexed; side lobes erect, with a rounded upper edge, abruptly lowering in front. *Column* pale orange or pinkish-orange, slender, ca 3.5 mm long; hood long, distinctly overtopping the stigma and anther, retuse at apex; anther inserted about halfway the hood, broadly cordate in outline ca 1 by 1 mm; pollinia 4 in 2 pairs, obovoid, ca 0.3 by 0.2 mm. *Fruit* ellipsoid, 11–14 by 6–7 mm. (Description of fruits based on de Vogel, 1988.)

Thailand.— NORTHERN: Phitsanulok [Phu Hin Rong Kla National Park, from Political and Military School (Rong Rian Kan Mueang Kan Thahan) to Communist Headquarters (Sam Nak Amnat Rat) nature trail, ca 1,250 m altitude, 14 Dec. 2007, *P. Tippayasri*, *C. Ngermsaengsaruy* & *O. Phueakhlai* 239 (BK, BKF, Herb. of the Department of Botany, Kasetsart University, spirit collections)].

Distribution.— NE India (type), Bhutan, Myanmar, Vietnam.

Ecology.— Epiphyte on tree in lower montane rain forest, ca 1,250 m altitude. Flowering: November–December. Fruiting: December (only young fruits found).

Vernacular.— Ueang bai pradap dok som (เอื้องใบประดับดอกส้ม).

Etymology.— The generic name *Pholidota* from the Greek pholidotos, clad in scales, referring

to the imbricate bracts of the inflorescence (Pridgeon et al., 2005). The specific epithet from the Latin ruber (red), which refers to the colour of the sepals and petals (Pearce & Cribb, 2002).

IUCN Conservation Status.— Vulnerable (VU B1ab(iv)) (IUCN, 2001). In Thailand the species is known from one, small population in Phu Hin Rong Kla National Park. The species has a restricted distribution in northern Thailand.

Notes.— *Pholidota rubra* is distinguished from the related species, *P. chinensis* by the following characters: rachis straight versus zig-zag, labellum with one low rounded keel at base versus three low rounded keels at base, length of dorsal sepal 4–5 mm versus (6–)7.5–11 mm.

*P. rubra* differs from *P. chinensis* in its distributions (*P. rubra* occurring in NE India, Bhutan, Myanmar, Thailand and Vietnam versus *P. chinensis* occurring in Myanmar, S China and Vietnam).

Data on *P. chinensis* from Seidenfaden (1992) and de Vogel (1988).

A proteranthous inflorescence is an inflorescence developing on top of a vegetative shoot of which the leaf or leaves and the terminal internode are not yet developed, in this stage its base is covered by scales. Synanthous inflorescence means inflorescence developing on top of a vegetative shoot of which the terminal internode is not yet developed, but the leaf or leaves are developing simultaneously with the inflorescence. In this stage its base is covered by scales from which also the young leaves are protruding to various extent (de Vogel, 1988).

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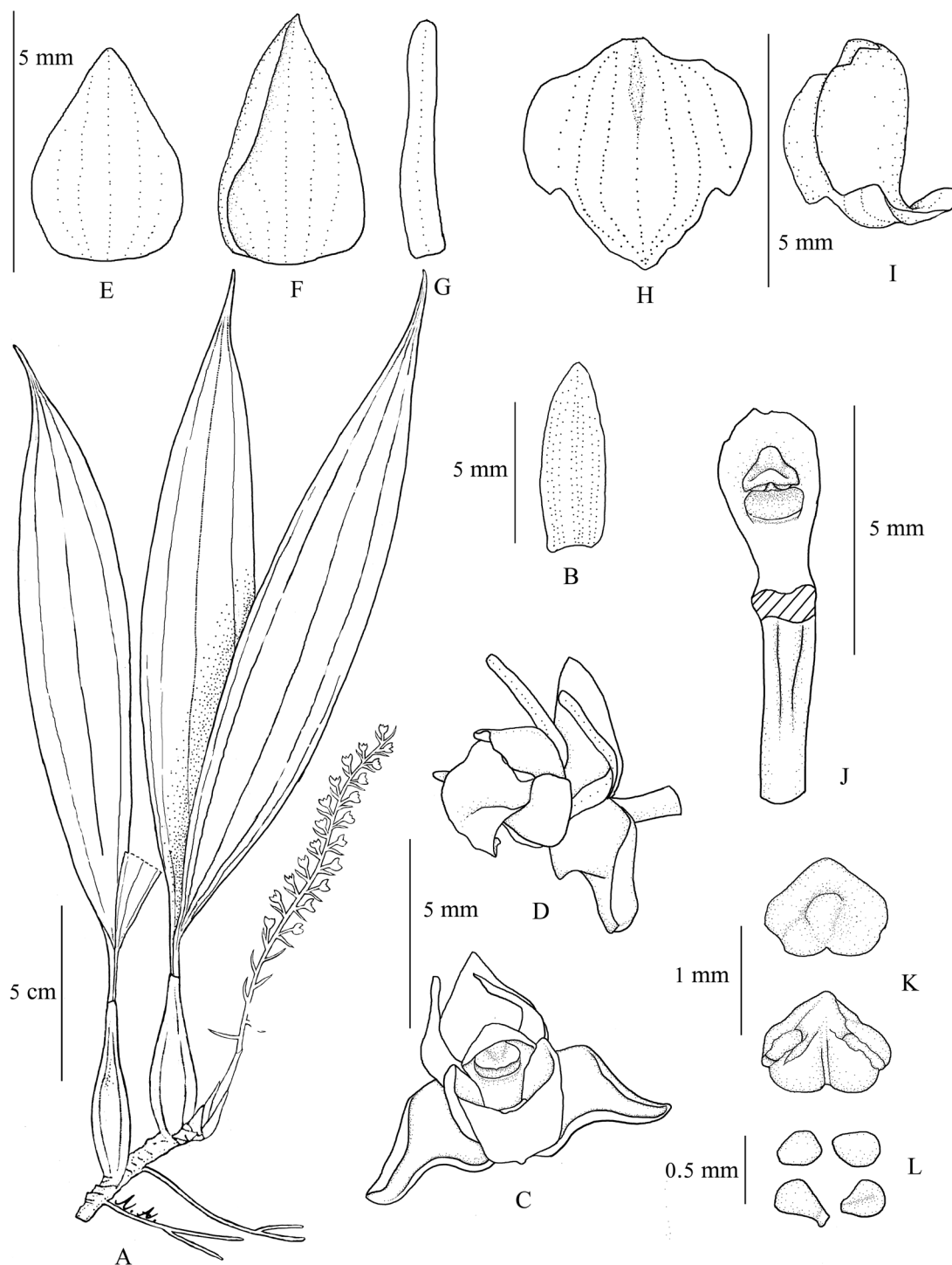


Figure 1. *Pholidota rubra* Lindl.: A. habit; B. floral bract; C. flower (front view); D. flower (side view); E. dorsal sepal; F. lateral sepal; G. petal; H. labellum (upper surface); I. labellum (side view); J. column, ovary and pedicel; K. anther (outside and inside); L. pollinia. Drawn by P. Tippayasri (B–L) and N. Anuraktragoon (A).



Figure 2. *Pholidota rubra* Lindl.: A–B. habit; C. proteranrhous inflorescence; D–F. partly inflorescence with persistent floral bracts; G. flower (front view); Photographed by C. Ngernsaengsaruy (A, E) and P. Tippayasri (B–D, F–G).

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