

Plectranthus phulangkaensis (Lamiaceae) a new species from Thailand

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ABSTRACT. *Plectranthus phulangkaensis*, a new species from Phu Langka National Park, Nakhon Phanom is described and illustrated.

KEY WORDS: *Plectranthus*, *Anisochilus*, new species, Lamiaceae, Thailand.

INTRODUCTION

This new perennial herb or undershrub was discovered during a plant collecting trip to Phu Langka National Park, Ban Phaeng District, Nakhon Phanom Province, in the North-Eastern part of Thailand in October 2013. The plants are normally found on sandstone cliffs in dry evergreen forest.

Plectranthus L'Hér. is a genus of annual or perennial herbs or undershrubs. It belongs to the tribe Ocimeae, subtribe Plectranthinae. An account for continental South-East Asia was completed by Suddee et al. (2004), in which 14 species were recognized. The fruiting calyx of *Plectranthus phulangkaensis* is also similar to the fruiting calyx of *Anisochilus* Wall. ex Benth., but the inflorescence is very different. *Anisochilus* members have inflorescences with adjacent verticils arranged close together and forming a dense tetragonal or cylindrical spike-like inflorescence whereas this new taxon has adjacent verticils distant. An overall treatment of *Anisochilus* was recently published by Suddee & Paton (2009) with 16 species recognized. Although this new species has fruiting calyx similar to members of *Anisochilus* it does not match any of the known species in that genus. It should be noted that *Anisochilus* nests within the 'Coleus' clade of *Plectranthus* (Paton et al. 2004). Thus it may be appropriate to merge *Anisochilus* into *Plectranthus* or *Coleus*, depending on the

details of how best to divide the Plectranthinae into monophyletic groups. It is placed in *Plectranthus* here as it keys out as this genus, due to the inflorescence character, in the most recent generic level key to the family (Harley et al. 2004). It is thus described and illustrated here.

DESCRIPTION

***Plectranthus phulangkaensis* Suddee, Suphuntee & Saengrit sp. nov.**

Differs from the other *Plectranthus* species in Thailand and neighbouring countries by the perennial or undershrub habit, the sessile flowers and the obliquely 4-toothed anterior lip of the fruiting calyx, and from species currently placed in *Anisochilus* by the lax inflorescence. Type: Thailand. Nakhon Phanom, Ban Phaeng District, Phu Langka National Park, 9 Oct. 2013, Suddee, Puudjaa, Rueangruea, Kiewbang, Hemrat & Pan-samrong 4588 (holotype BKF; isotypes BKF). Figs. 1 & 2.

Perennial herbs or undershrubs, up to 1.5 m tall. *Stems* green, rounded, branched, glabrous below, pubescent above. *Leaves* oblong to oblong-lanceolate, 3–10 by 1–3.5 cm, apex acute or obtuse, base cuneate, margin serrate-crenate, scabrous on both surfaces, veins prominent beneath; petioles 0.8–2 cm long, puberulous. *Inflorescence* terminal, up to 40 cm long, often with several lateral long

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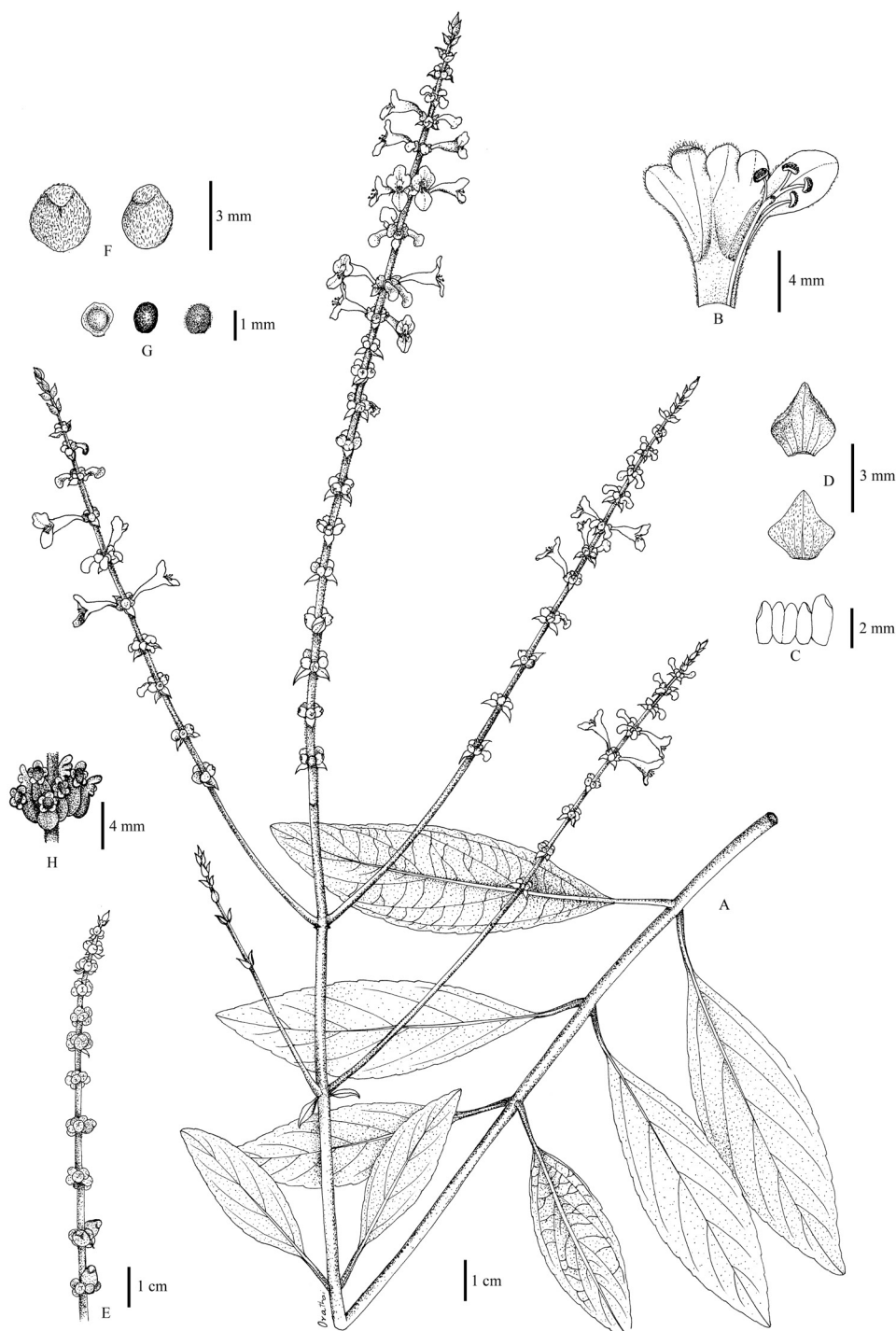


Figure 1. *Plectranthus phulangkaensis* Suddee, Suphuntee & Saengrit, A. flowering branch; B. longitudinal section of flower; C. longitudinal section of calyx; D. bract, adaxial and abaxial surfaces; E. young fruiting branch; F. young fruiting calyces; G. nutlets, left and right: nutlets when wet; middle: normal nutlet; H. fruiting calyces. All from Suddee *et al.* 4588 (BKF); Drawn by O. Kerdkaew.



Figure 2. *Plectranthus phulangkaensis* Suddee, Suphuntee & Saengrit, A. habit; B–C. flowers; D. fruiting branch. All photographed by S. Rueangrua.

branches; axis puberulous to pubescent; verticils 0.5–2.5 cm apart; cymes sessile, 3–several-flowered; bracts sessile, caducous, ovate, 2.5–4 mm long, acute to acuminate, pubescent; pedicels sessile both at anthesis and in fruit. *Calyx* ovoid to subtubular, 2–2.5 mm long at anthesis, 3.5–5 mm long in fruit; posterior lip 1-lobed, ovate-orbicular, glabrous inside, pubescent outside; anterior lip obliquely 4-toothed, ovate, shorter than posterior lip, lateral; tube slightly constricted at throat, glabrous inside, pubescent outside, gibbous at anterior base. *Corolla* purple, 0.8–1.1 cm long; posterior lip 4-lobed, ovate-orbicular, rounded or obtuse at apex, lateral lobes smaller than median lobes; anterior lip 1-lobed, obovate-oblong, 2.5–4 mm long, flattened, pubescent outside; tube 6–8 mm long, gradually dilated towards throat, pubescent outside. *Stamens* 4, didynamous, declinate, glabrous, anterior pair longer; posterior and anterior pairs attached close together just below the base of anterior corolla lip. *Style* shortly bifid with subequal branches. *Disc* with anterior side well developed. *Nutlets* black, ellipsoid, c. 1 mm long, producing mucilage when wet.

Thailand.—NORTH-EASTERN: Nakhon Phanom [Ban Phaeng District, Phu Langka National Park, 192 malt., 9 Oct. 2013, Suddee, Puudjaa, Rueangruea, Kiewbang, Hemrat & Pansamrong 4588 (BKF)].

Distribution.—Endemic (known only from Phu Langka National Park).

Phenology.—Flowering: September–November.

Ecology.—Dry evergreen forest on sandstone cliffs; 190–400 m alt.

Vernacular.—Som phu langka (โสมภูลังกา).

Etymology.—The epithet '*phulangkaensis*' refers to the collecting locality.

Conservation.—This species is known only from Phu Langka National Park with the estimated area of occupancy around 2 km². Locally over collected as a medicinal plant by nearby villagers, and this might affect the species survival chances and is assessed here as Critically Endangered, CR B1+2 ab(i,ii,iii), following IUCN (2001).

Notes.—*Plectranthus phulangkaensis* is similar to *P. helferi* from the Tenasserim Range in having sessile cymes and adjacent verticils distant but differs in having perennial or undershrub habit

and the obliquely 4-toothed anterior lip of the fruiting calyx. The sterile plants with leaves can be confused with *Anisochilus harmandii* Doan ex Suddee & A.J.Paton which also occurs in the area.

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