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A new species of *Platostoma* (Labiatae) from Thailand

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ABSTRACT. *Platostoma tridechii*, a new species from Phu Wua Wildlife Sanctuary, Thailand, is described and illustrated.

KEY WORDS: *Platostoma*, Labiatae, Lamiaceae, Phu Wua, Thailand, new species.

INTRODUCTION

While preparing the treatment of Labiatae (Lamiaceae) for the Flora of Thailand, the genera of Ocimeae were revised for continental South East Asia (Burma, Thailand, Laos, Cambodia and Vietnam) (Suddee et al., 2004a, 2004b, 2005). The Ocimeae in Indochina and Thailand were shown to be represented by nine genera with a total of 77 taxa including the genus *Platostoma*, which has a centre of distribution in Indochina around the Boloven plateau in Laos. Twenty one species and six varieties of *Platostoma* were recorded from continental South East Asia with 20 of them occurring in Thailand. While revising the genus, a new species of subgenus *Platostoma* section *Mesona* (Blume) A.J. Paton was found. This section is characterised by nutlets which are apically acute and posterior stamens which are often appendiculate (Paton, 1997).

Phu Wua Wildlife Sanctuary and adjacent areas are botanically unique, with many new taxa having been described from the locality during the past decade. *Platostoma tridechii* was found in Phu Wua Wildlife Sanctuary during a botanical excursion to northeastern Thailand in October 2007.

DESCRIPTION

Platostoma tridechii Suddee **sp. nov.**, *P. grandifloro* Suddee et A.J.Paton calyce in fructu similis sed minore atque labio posteriore unilobato nec trilobato differt. *P. cambodgensi* Suddee et A.J.Paton inflorescentia similis sed habitu perenni nec annuo et posterioribus staminibus apicaliter glabris nec villosis differt. Typus: Thailand, Nong Khai, Bungkhla Distr., Phu Wua Wildlife Sanctuary, on sandstone plateau top, 16 Oct. 2007, *Suddee*, *Phutthai*, *Hemrat & Ritthiphet* 3364 (holotypus **BKF!**; isotypus **BCU!**). Figs. 1–3.

Erect short-lived perennial herbs to 50 cm tall. Stems quadrangular or round-quadrangular, branched, pubescent. Leaves subsessile to distinctly petiolate, chartaceous, linear-oblong to lanceolate-oblong, 1.5–3.5 by 0.4–1 cm, apex acute, base cuneate, margin serrate on upper leaves, lower entire, scabrous to hispid above, pubescent to villous with denser hairs on veins beneath; petioles 0.5–2 mm long, densely pubescent. Inflorescences terminal and axillary on upper leaf axils, to 20 cm long, 1.2 cm wide; verticils interrupted, 0.7–1.5 mm apart; cyme with 2 secund branches; bracts sessile, persistent, lanceolate, to 2.5 by 0.7 cm, acute at apex, adaxial surface glabrescent to pubescent, abaxial pubescent to villous, pinkish-green at apex, pinkish-purple at base, each bract subtending 3–12 flowers; pedicels 1.5–2 mm long in flower, 2–4 mm in fruit, flattened. Calyx campanulate, 1.5–3 mm long at anthesis, ovate-oblong, 3.5–4.5 mm long in fruit; posterior lip 1-lobed, 1–1.5 mm long, curved upward, glabrescent or pubescent on both sides; anterior lip not lobed, ovate-oblong, ca 1 mm long, rounded at apex, curved upwards and closing throat, pubescent to villous outside; tube ovate-

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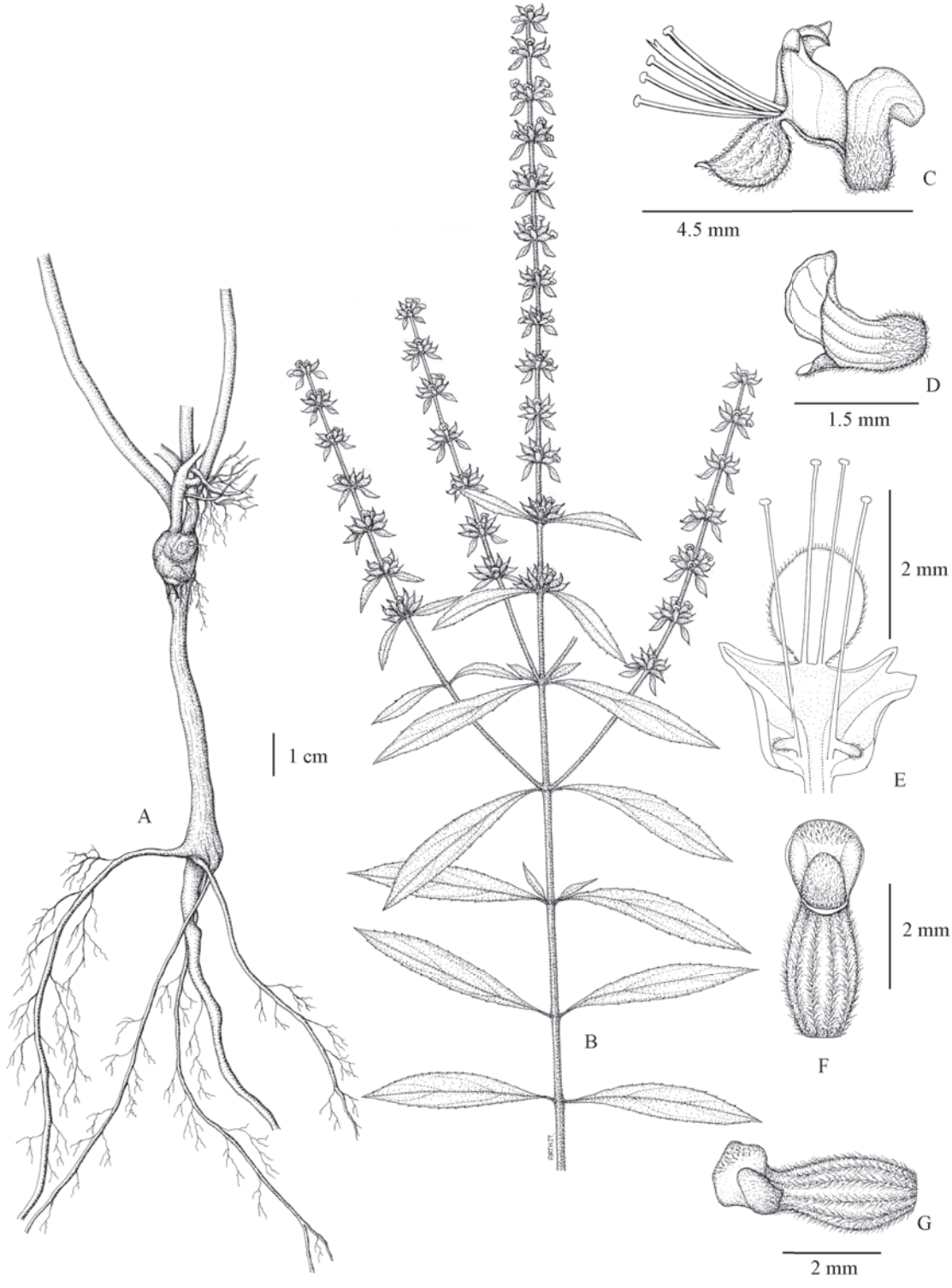

Figure 1. *Platostoma tridechii* Suddee: A. rootstock; B. inflorescence; C. flower; D. calyx; E. opened flower; F. & G. fruiting calyx (all from *Suddee et al*. 3364 (BKF). Drawn by Arthit Kamgamnerd).

Figure 2. *Platostoma tridechii* Suddee: A. habit; B. inflorescences; C. & D. flowers & fruiting calyx; *P. cambodgense* Suddee & A.J. Paton: E. inflorescences; F. flowers; G. fruiting calyx; H. habit. Photographed by T. Phutthai.

oblong, 2–3 mm long, hispid, transversely pitted, with a short spur on anterior base. Corolla purple, 2–3.5 mm long; posterior lip 3-lobed, midlobe largest, subtruncate in appearance, lateral lobes minute, triangular-ovate; anterior lip entire, ovate to orbicular-oblong, 1.5–2 mm long, concave, pubescent outside; tube tubular-campanulate, 1.5–2 mm long, abruptly expanded above ovary, slightly gibbous on posterior side. Stamens exserted; anterior pair attached at the base of anterior corolla lobe, glabrous; posterior pair appendiculate, attached near the base of corolla tube, glabrous above, at base finely pubescent on appendage. Ovary glabrous. Style bifid with unequal pointed stigma lobes, anterior lobe longer, not exceeding anterior stamens. Disc with anterior side well developed, apex obtuse, not exceeding ovary. Nutlets brown, oblong, ca 1 mm long, apically acute, minutely striate, slightly mucilaginous when wet.

Thailand.— NORTHEASTERN: Nong Khai [Bungkhla District, Phu Wua Wildlife Sanctuary, on sandstone plateau top, 16 Oct. 2007, *Suddee et al*. 3364 (holotype **BKF!**; isotype **BCU!**)].

Distribution.— Endemic, possibly confined to the type locality. To be expected in Laos.

Ecology.— In partly shady area in Dry Deciduous Dipterocarp Forest on sandstone plateau; 180 m altitude. Flowering and fruiting October (probably until November/December).

Etymology.— This specific epithet is named in dedication of Dr. Saksit Tridech, the former Permanent Secretary, Ministry of Natural Resources and Environment who has long been working for the livelihood and benefit of people in both urban and rural areas in Thailand, especially in the aspects of biodiversity conservation. He passed away untimely by helicopter crash on its way to a

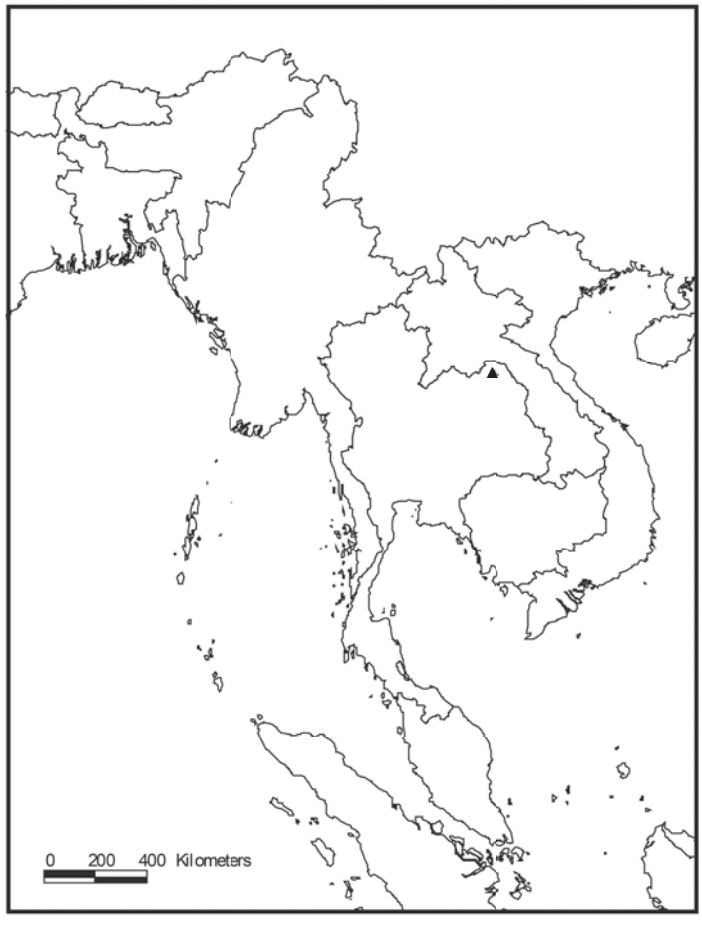

Figure 3. Distribution of *Platostoma tridechii* Suddee (▲) in Phu Wua Wildlife Sanctuary.

royally-initiated project in Nan Province on 17 August 2010.

Notes.— *Platostoma tridechii* is distinguished from the related species, *P. grandiflorum*, by the following main characters: the smaller fruiting calyx (3.5–4.5 mm long in *P. tridechii* versus 6–8 mm long in *P. grandiflorum*), the unlobed posterior lip of the fruiting calyx which is only slightly bent backwards (versus obviously 3-lobed with median lobe strongly bent backwards in *P. grandiflorum*). It can be distinguished from *P. cambodgense* by its perennial rather than annual habit, the upper part of posterior stamens being glabrous rather than villous, the veins on the upper surface of leaves smooth rather than grooved, the posterior lip of the corolla with a subtruncate median lobe and minute lateral lobes rather than the median lobe acute-obtuse and the lateral lobes ± equal to median lobe in length, the corolla anterior lip pubescent rather than villous outside, the tube of the fruiting calyx hispid rather than densely pubescent to villous (Fig. 2).

Conservation.— This species is known only from one locality with small population observed from several field trips to Phu Wua Wildlife Sanctuary. The species grows on shallow soil in dry forest on a plateau. Grazing by cattle from the nearby villages might affect the species habitat. Conservation status CR B1+2 ab(i,ii,iii) (IUCN 2001).

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