

Two New Records of *Elsholtzia* Willd. (Lamiaceae) for Thailand

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ABSTRACT.– *Elsholtzia beddomei* C. B. Clarke ex Hook. f. and *E. stachyodes* (Link) Raiz. & Saxena are new records for Thailand. Descriptions and illustrations are provided.

KEY WORDS: *Elsholtzia beddomei*, *E. stachyodes*, Lamiaceae, Thailand

INTRODUCTION

Elsholtzia Willd., a genus with *ca.* 40 species in the family Lamiaceae, is mainly distributed in China (Xi-wen and Hedge, 1994). There have been only two studies of the genus in Thailand. In the first, Craib (1918) describes *E. winitiana* from Doi Sutep, Chiang Mai as a new species. In the second, The Forest Herbarium (2001) lists one species of this genus, *E. kachinensis* Prain. While preparing the genus for the Flora of Thailand and recent visits in the fields by the authors, flowering material of two newly recorded species of *Elsholtzia*

were collected and these are described here.

MATERIALS AND METHODS

This study is based on our field work in Thailand and on herbarium collections from the following herbaria BCU, BK, BM, BKF, CMU, K, KKU, PBM, PSU and QBG (for abbreviations see Holmgren and Holmgren, 1998). Living material of two species was also collected in the field. Drawings of plants were made from material boiled up in water.

SYSTEMATICS

Elsholtzia beddomei C.B.Clarke ex Hook.f.
Figures 1 and 3A.

Elsholtzia beddomei C.B.Clarke ex Hook.f.,
Fl. Br. Ind. 4: 643. 1885; Mukerjee, Rec.
Bot. Surv. India 14(1): 90. 1940. Type:
Myanmar, Tenessarim, Thougyeen forests,
Beddome 147 (BM!-holotype).

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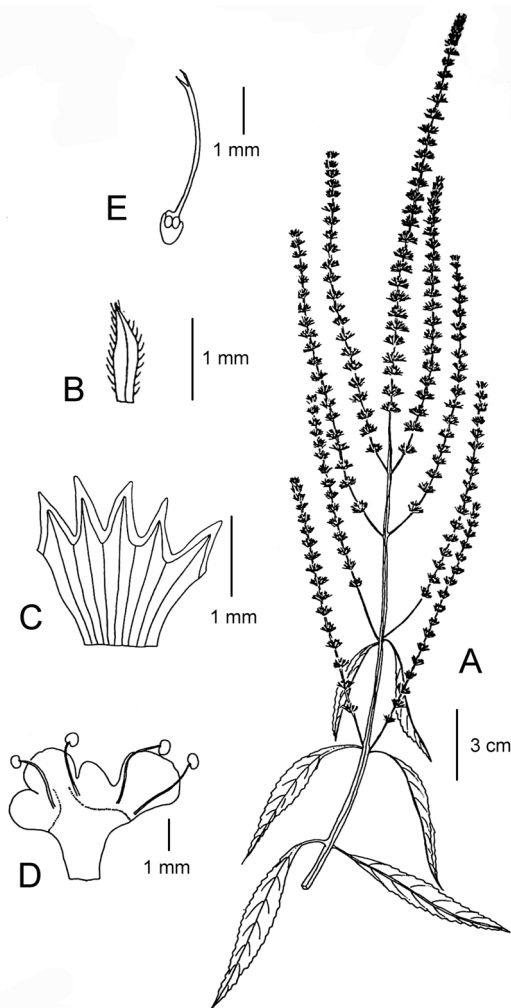


FIGURE 1. *Elsholtzia beddomei*: A. habit; B. bract; C. open calyx; D. open corolla and stamens; E. pistil. Drawn from *B. Bongcheewin* 518 (KKU).

Erect shrubby herb up to 1.7 m tall. *Stems* slightly quadrangular, densely pubescent with long white hairs and glands. *Leaves* membranous, elliptic-ovate or elliptic, 5–10 by 1–2 cm, apex obtuse, base attenuate, margin obtuse-serrate, densely pubescent with long white hairs on both sides, with brown glands beneath; petioles 6–15 mm long. *Inflorescence* terminal and

axillary, spike-like cymose, lax, 9–23 cm long, densely tomentose; cymes lax; bracts elliptic-lanceolate, 1–3 by 0.3–1.0 mm, pubescent with brown glands inside, glabrescent, outside. *Calyx* campanulate, 2–3 mm long at anthesis, densely whitish villous, inconspicuously 2-lipped; teeth subequal, ovate-triangular, apex acute, 0.8–1.0 by 0.3–0.4 mm, tube ventricose, 10-nerved. *Corolla* white, campanulate, ca. 3.6 mm long, posterior lip 3-lobed, central lobe obovate, 0.9–1.0 by 1.7–1.8 mm, apex emarginate, margin undulate, lateral lobes ovate-triangular or ovate, 0.4–0.5 by 1.0–1.1 mm, anterior lip 1-lobed, broadly elliptic, 1.1–1.2 by 1.7–1.8 mm, apex obtuse, margin undulate, densely pubescent with sparse yellow glands outside, interrupted annulus inside. Stamens exerted, glabrous, anterior pair 2.2–2.3 mm long, posterior pair 2.1–2.2 mm long, both pairs inserted on corolla tube at 2.1–2.2 mm from base, anthers kidney-shaped. Style included or slightly exerted in posterior corolla lip, glabrous, 2.8–3.0 mm long, stigma bifid, unequal. Disc 0.6–0.7 mm long, with a single tumescent lobe.

Thailand.- NORTHERN: Tak [Doi Hua Mod, Umpang, Jan. 2004, *B. Bongcheewin* 518 (KKU), Mar. 2004, *B. Bongcheewin* 638 (KKU), Feb. 1987, *Y. Paisooksantivatana* 2048-87 (BK), Herb. Trip 785 (BCU)].

Distribution.- Myanmar.

Ecology.- Open dry forest, ca. 800–900 m. Flowering and fruiting November–March.

Note.- *Elsholtzia beddomei* is distinguishable from *E. winitiana* Craib in having a 10-nerved calyx and a lax spike.

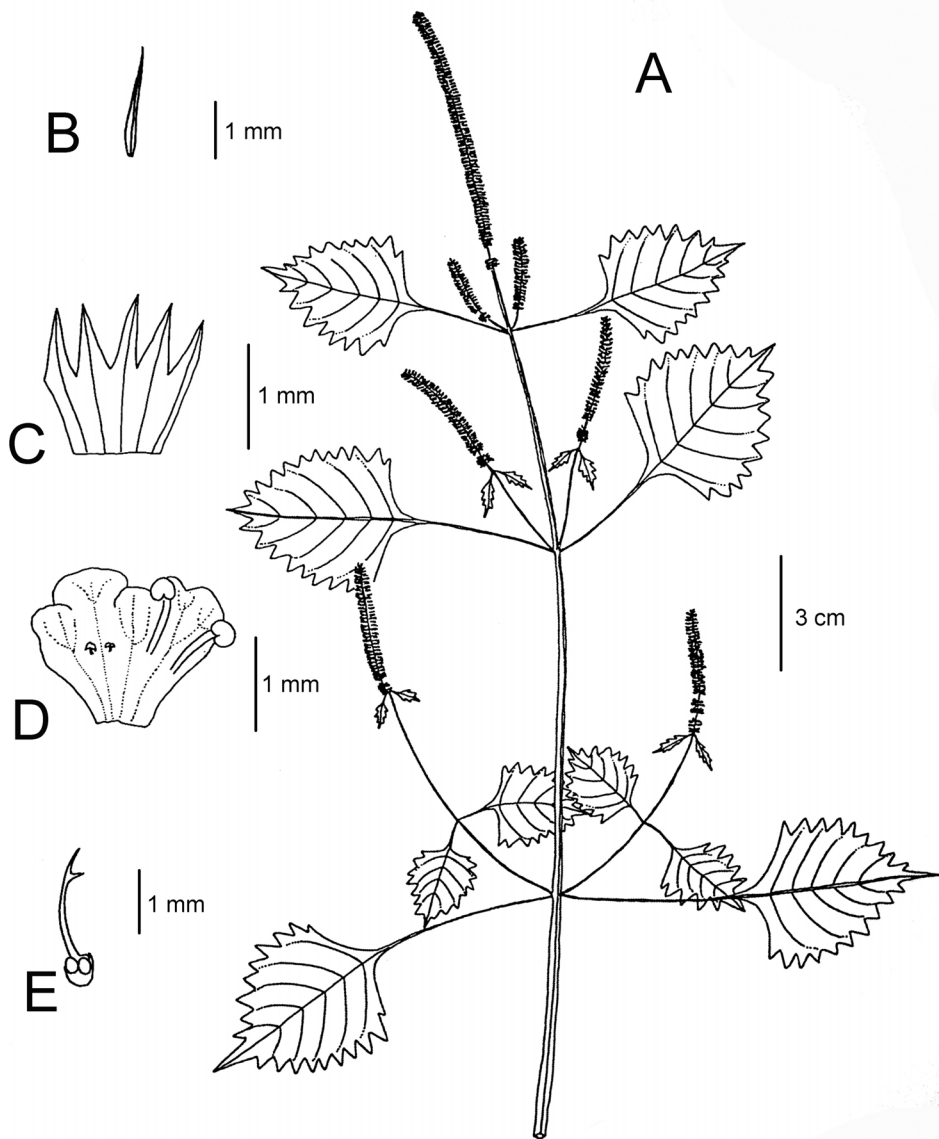


FIGURE 2. *Elsholtzia stachyodes*: **A.** habit; **B.** bract; **C.** open calyx; **D.** open corolla and stamens; **E.** pistil. Drawn from *S. Suddee et al.* 2123 (KKU).

Elsholtzia stachyodes (Link) Raiz. &
Saxena
Figures 2 and 3B.

Elsholtzia stachyodes (Link) Raiz. and
Saxena, Ind. Forest. 92: 309. 1966. *Hyptis*
stachyodes Link, Enum. Hort. Berol. alt. 2:
106. 1822. Type: not located. *E. incisa*
Benth., Bot. Reg. sub.: t. 1282. 1829;
Hook.f., Fl. Br. Ind. 4: 638. 1885. *E.*

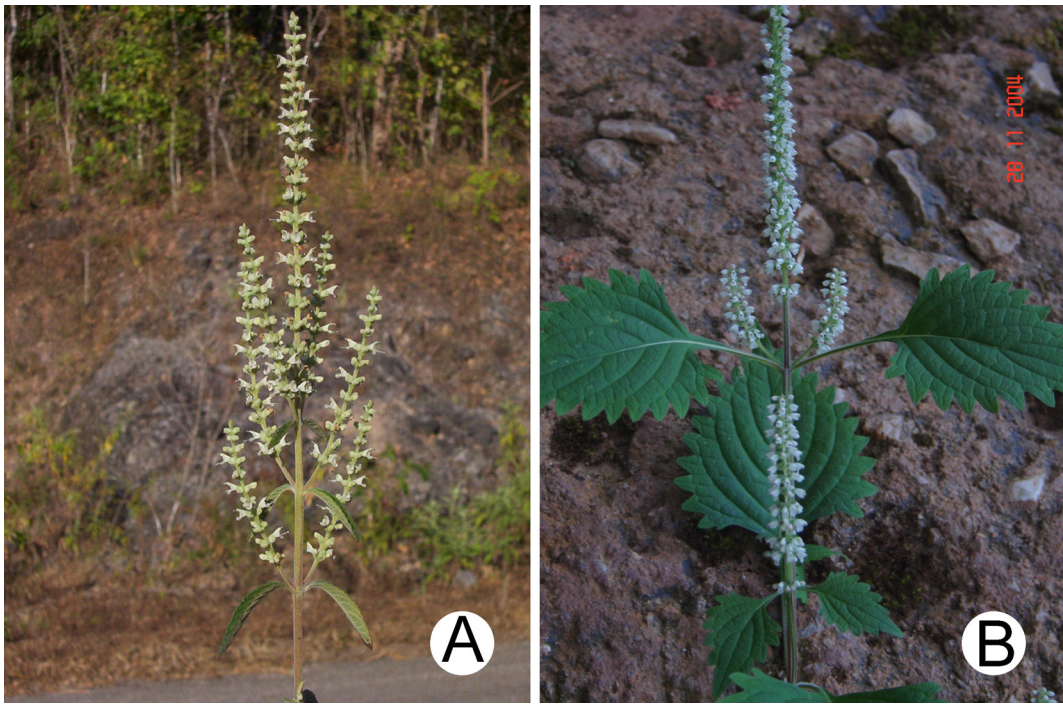


FIGURE 3. (A) *Elsholtzia beddomei*: Doi Hua Mod, Umpang, Tak. Photo by B. Bongcheewin. (B) *Elsholtzia stachyodes*: Doi Angkang, Fang, Chiang Mai, Photo by S. Suddee.

incisa (Benth.) Benth., Lab. Sp.: 162. 1833. *E. stachyodes* (Link) C.Y.Wu, Acta Phytotax. Sin. 12(3): 340. 1974; Xi-wen & Hedge in Zheng-yi and Raven, Fl. China 17: 251. 1994.

Erect herb, 0.3–1.0 m. *Stems* yellow-brown, quadrangular, much branched, puberulent with dense pale yellow hairs. *Leaves* rhomboid-ovate, 1.5–3.0 by 1–2 cm, apex acute, base attenuate, margin incised serrate, short yellow-white recurved hairy inside, densely glandular and white recurved hairy especially on venation outside; *petioles* 3–5 cm long. *Inflorescence* terminal and axillary, spike-like cymose, lax, 4–10 cm long densely tomentose; *bracts* subulate, 1–2 by 0.1–0.2 mm. *Calyx* campanulate, 0.8–1.5 mm at anthesis, densely whitish villous

outside, glabrescent inside, inconspicuously 2-lipped; teeth subequal, triangular-subulate, apex acute, 0.7–1.0 by 0.3 mm, tube slightly ventricose, 5-nerved. *Corolla* white or pale pink, campanulate, 1.3–2.0 mm long, posterior lip 3-lipped, central lobe bigger than lateral lobes, apex undulate, anterior lip 1-lobed, apex emarginate, lobes densely pubescent outside, glabrescent inside. *Stamens* included or slightly exerted, glabrous, anterior pair 0.5–0.8 mm long, posterior pair reduced, each pair inserted at different level from corolla tube base, anthers kidney-shaped. *Style* included in posterior corolla lip, glabrous, 1.5–2.0 mm long, stigma bifid, unequal. *Disc* 0.2–0.3 mm long, with a single tumescent lobe.

Thailand.- NORTHERN: Mae Hong Son [Morning market, Muang, Dec. 1991,

O. Thaithong 1157 (BCU)], Chiang Mai [Doi Angkang, Fang, 3 Dec. 1974, *J. Sadakorn* 364 (BK); Doi Angkang, Fang, Nov. 2004, *S. Suddee*, *C. Hemrat* and *S. Suwanachat* 2123 (BKF, KKU); Doi Angkang, Fang, 12 Dec. 1977, *Unknown* 13 (BK); Doi Chiangdao, Chiangdao, Tung Khao Puang district, Ban Khun Khong, 24 Nov. 1989, *Y. Paisooksantivatana* 2578-89 (BK)]; SOUTH-WESTERN: Prachuap Khiri Khan [Pa La-u, Dec. 2002, *O. Neamsuvan* 87 (BCU)].

Distribution.— India, Nepal, China, Myanmar.

Ecology.— Hill evergreen forest, 1,000–1,800 m. Flowering and fruiting November–February.

Note.— *Elsholtzia stachyodes* is morphologically similar to *E. griffithii* Hook. f but differs in having rhomboid-ovate leaves and longer petioles.

ACKNOWLEDGEMENTS

We are grateful to the Directors and curators and staff of BCU, BK, BM, BKF, CMU, K, KKU, PBM, PSU and QBG for providing access to material. We would like to thank Dr Somran Suddee for making

welcome suggestions and kind loan of his collection of *E. stachyodes*. This research is supported by a grant from the TRF/BIOTEC Special Program for Biodiversity Research and Training grant (BRT T_146008).

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Received: 5 November 2007

Accepted: 29 February 2008