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RESEARCH ARTICLE

Scutellaria hsiehii (Lamiaceae), a New Species from Taiwan

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ABSTRACT: A new species, *Scutellaria hsiehii* (Lamiaceae), was collected from central part of the island. *Scutellaria hsiehii* is close to *S. playfairii* Kudo, but can be distinguished by its slender procumbent stems, long petiole, long ovate leaves with 3–5 serration along the margin and nutlet coat with short grapping-hook tubercles. A taxonomic description, line drawing, pollen morphology in SEM observation, distribution information, and color photographs of the floral characters are provided.

KEY WORDS: Lamiaceae, new species, *Scutellaria hsiehii*, Taiwan, taxonomy.

INTRODUCTION

The genus *Scutellaria* L. (Lamiaceae) consists of about 350 (Li and Hedge, 1994) to 360 (Paton, 1990; Harley et al., 2004) species in subcosmopolitan distribution but poorly represented in moist tropical lowlands (Harley et al., 2004). Six species were recorded in Flora of Taiwan, 2nd ed. (Huang et al., 1998). Although the species of *Scutellaria* was critically revised in Taiwan (Hsieh and Huang, 1995, 1997; Huang et al., 1998), a new species, *Scutellaria taipeiensis* T.C. Huang, A. Hsiao & M.J. Wu was reported in Taipei, north Taiwan in 2003 (Huang et al., 2003). Recently in the course of botanical inventory, a new species, *Scutellaria hsiehii* T.H. Hsieh (Fig. 1) was collected from Renlun logging trail, Hsinyi District, Nantou Hsien, central Taiwan. *Scutellaria hsiehii* is close to *S. playfairii* Kudo in flower size and morphology. *Scutellaria playfairi* has erect stems, short petiole (3–4.5 mm), broadly ovate leaves (1.8–3.2 cm long) with 5–9 serration along the margin (Hsieh and Huang, 1997) and nutlet coat with rounded concentric tuberculae (Hsieh and Huang, 1995), but *Scutellaria hsiehii* has slender procumbent stems, long petiole (5–9 mm long), long ovate leaves (2.5–4.3 cm long) with 3–5 serration along the margin (Figs. 2A and B) and nutlet coat with short grapping-hook tubercles (Figs. 1E, F and G).

A taxonomic description, line drawing, pollen, distribution information, and color photographs of this *Scutellaria hsiehii* are presented below.

New Species

Scutellaria hsiehii T.H. Hsieh, ***sp. nov.***
長葉黃芩 Figs. 1 & 2

Type: TAIWAN. Nantou Hsien, Hsinyi District, Renlun logging trail, scattered on steep slope and forest edges along the logging trail, E120°55', N23°43', ca. 1600 m alt., 3 Oct. 2010, *T. H. Hsieh 3075* (holotype: TAI; isotypes: Herbarium of National University of Tainan).

Description: Perennial herbs, to 60 cm long; stems slender, procumbent, quadrangular, minutely puberulent. Leaves opposite, thick chartaceous, more or less fleshy; petioles 5–9 mm long, minutely puberulent,; blade ovate to lanceolate-ovate, (2.0)2.5–4.3 cm long, 1.3–2.0(2.3) cm wide, apex acute to obtuse, base obtuse to truncate, with 3–5 pairs serrate teeth; upper surface loosely minutely puberulent, veinlets sunken, lower surface minutely puberulent on nerves. Inflorescences terminal or axillary, racemose, abruptly upward, 4–10 cm long, rachis minutely puberulent, bracts ovate, obtuse, entire, 1.4–1.7 mm long, 0.8–0.9 mm wide, minutely puberulent. Flowers opposite, pedicels twisted, nearly in one plane; flower bilabiate; pedicels 2–3 mm long in flower, 3–4 mm long in fruit; calyx tubular, bilobed, 1.8mm long in flower, 2.8 mm in fruit, with a scutellum on upper lobe, 1 mm long in flower, 3.6 mm im fruit, minutely puberulent; corolla tubular, bilabiate, purplish-blue, 1.5–1.7cm long, geniculate at base, cover with spreading pilose, upper lip very broadly ovate, emarginate at apex, lower lip broadly ovate, 3-lobed, central lobe emarginate at apex. Stamens 4, didynamous, included; filaments inserted on corolla tube, with minutely puberulent on the middle; anthers minutely hairy. Nutlets ellipsoid, black, 1 mm long, 0.8 mm wide, surface with short grapping-hook tubercles, hilum lateral.

Distribution: Found only from the type locality in Renlun Logging trail, Nantou County, Taiwan.

Habitat and Ecology: Found on steep slope and

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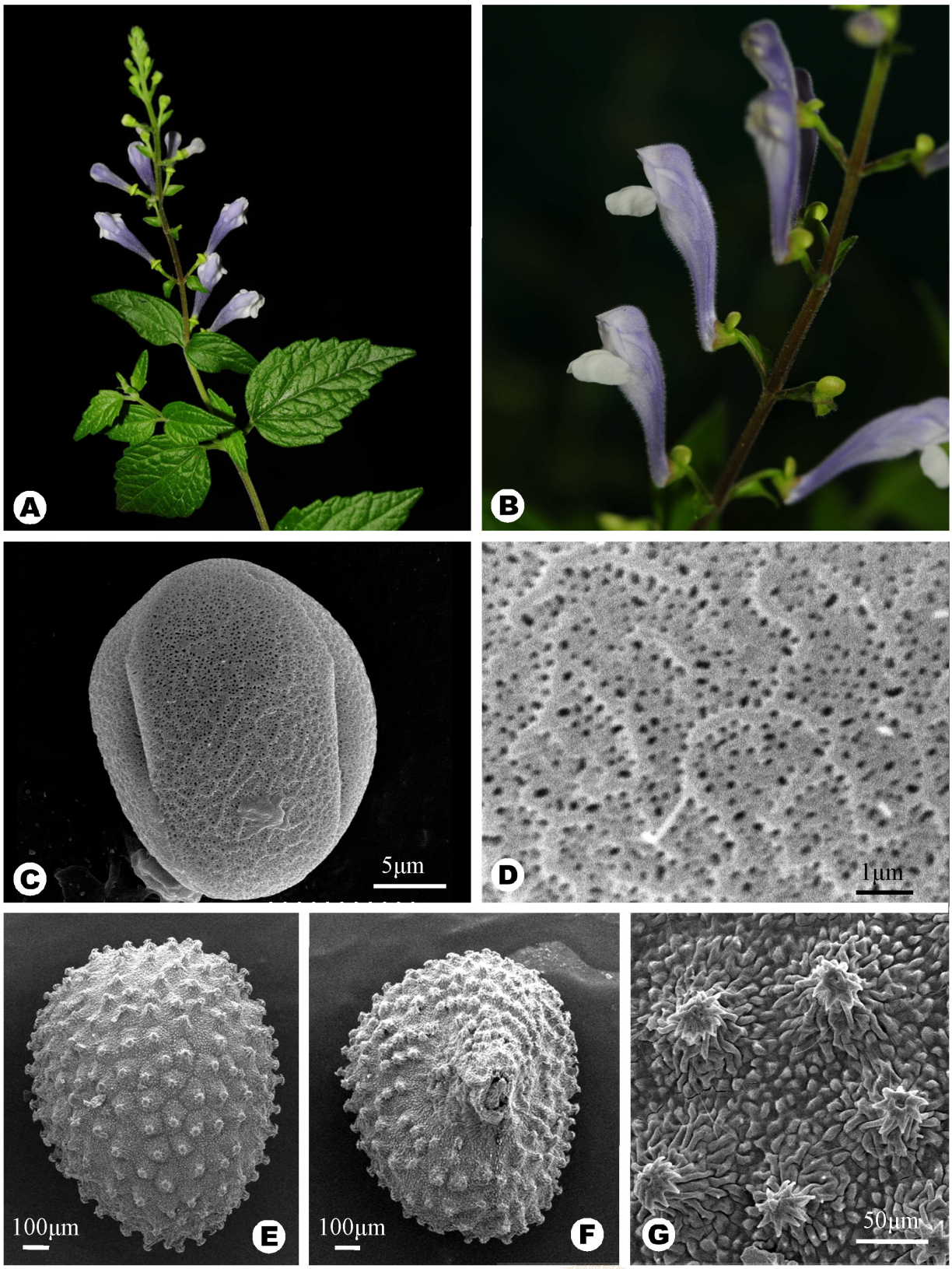


Fig. 1. Color photographs ans SEM micrographs of *Scutellaria hsiehii* T. H. Hsieh. A: Habit. B: Flowers. C & D: SEM micrograph of pollen with microporforation on tectum. E, F, and G nutlet.

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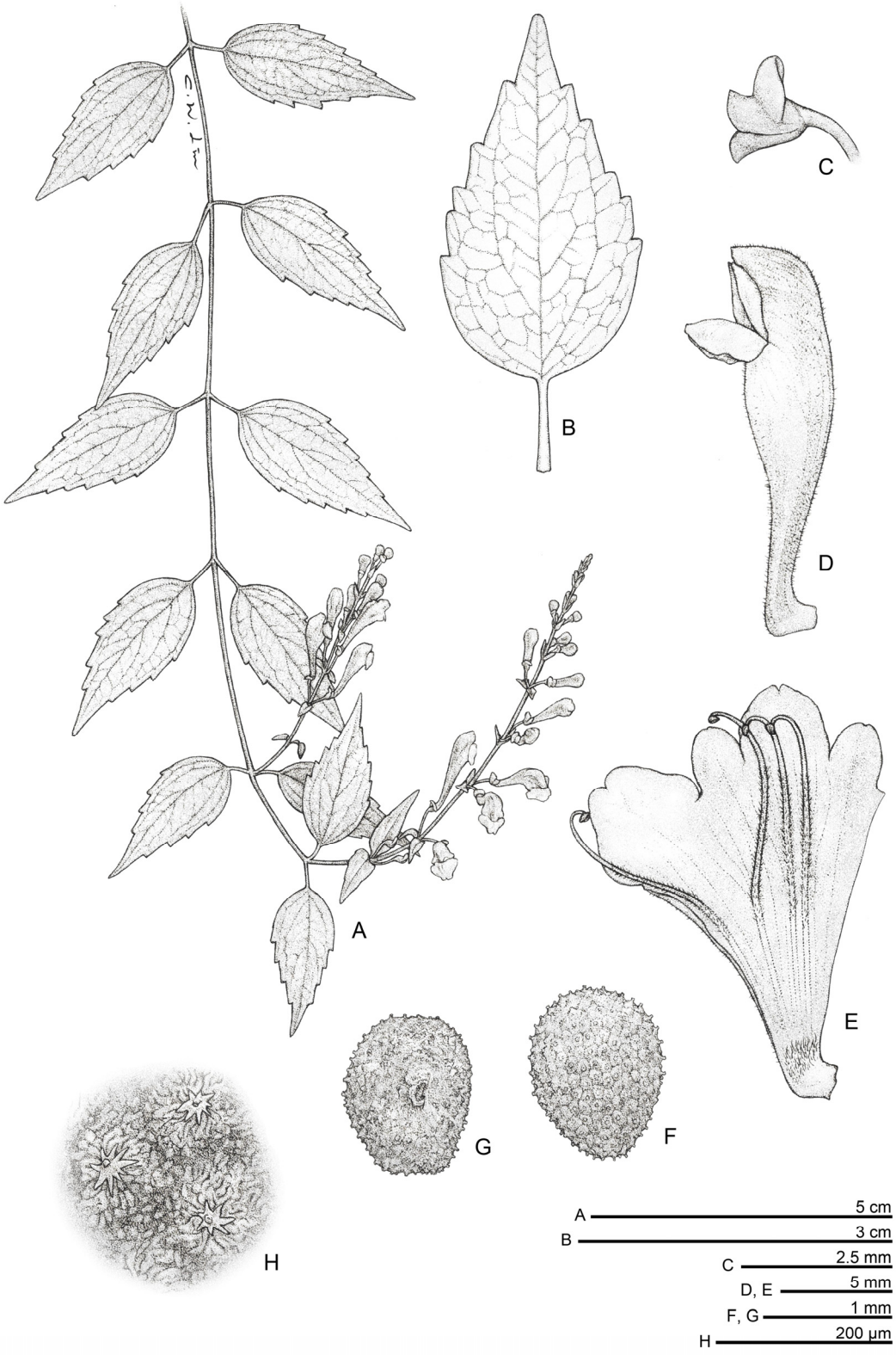


Fig. 2. Illustration of *Scutellaria hsiehii* T. H. Hsieh. A: Habit. B: Leaf. C: Calyx with a scutellum. D: Corolla. E: Dissected corolla with four stamens. F, G, and H: Nutlet.

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forest edge in elevation 1,600 m. Flowering Oct. to Mar.

Pollen morphology: Pollen grains isopolar, 3-colpate, prolate, tectum loosely reticulate to regulate and microporation in external ornamentation(Figs. 1C and D). Similar palynological features have also been reported for *Scutellaria playfairi* (Hsieh and Huang, 1995).

Etymology: Named in honor of Dr. Chang-Fu Hsieh, professor of National Taiwan University, Taiwan for his continuous, long-term contributions to study of the flora and vegetation of Taiwan.

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台灣黃芩屬一新種 ── 長葉黃芩

謝宗欣

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摘要：本文報導產於台灣中部唇形科黃芩屬一新種植物─長葉黃芩（*Scutellaria hsiehii* T. H. Hsieh），本種與布烈氏黃芩（*S. playfairii* Kudo）形態相似，但本種枝條細長下垂，葉具長柄，長卵形葉具3–5個鋸齒和小堅果表面具鉤狀突起等特徵可以區別。本文提供形態描述、手繪圖、花粉SEM圖片、彩色照片以供鑑定參考。

關鍵詞：新種、唇形科、長葉黃芩、台灣、植物分類學。

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