

***Sonerila* Roxb. (Melastomataceae), a New Generic Record for the Flora of Taiwan**

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ABSTRACT: *Sonerila tenera* Royle (Melastomataceae) is a small herb distributing in India, Burma, Vietnam, Indonesia, the Philippines, and S. China. It is reported for the first time from Chuyunshan Forest Road, Kaohsiung Hsien, southern Taiwan. Taxonomic description, habitat information, a color photo, and pollen morphology are provided here.

KEY WORDS: *Sonerila tenera* Royle, A new generic record, Melastomataceae.

INTRODUCTION

The genus *Sonerila* Roxb. (Melastomataceae), consisting of about 170 species of small herbs or shrubs, is distributed in tropical Asia (Backer and Bakh. van den Brink Jr., 1963; Chen, 1984). This genus is very different from the other genera in Melastomataceae by its 3-merous flower, such as three sepals, three or six petals and stamens, and three carpels (Backer and Bakh. van den Brink Jr., 1963). Hitherto, this genus was not been reported in Taiwan (Keng and Li, 1977; Li, 1994; Huang and Huang, 1991, 1993).

Recently, we found *Sonerila tenera* Royle from Chuyunshan Forest Road, Kaohsiung Hsien, southern Taiwan. This species is a small herb and characterized by thin membranaceous, oblong to ovate leaves (0.5-2.5 cm long, 0.4-1.1 cm wide) with 3 base nerves and erect stiff hairs on both surfaces (Chen, 1984; Backer *et al.*, 1963).

***Sonerila* Roxb. nom. cons.**

Herbs or small shrubs. Leaves opposite, those of a pair often unequal, with 3 or more base nerves, or plinerved. Flowers solitary or fascicled, umbellate or in cincinni, 3-merous, bisexual; sepals tubular, often triangular; petals ovate or obovate, the midrib of lower surface with spreading glandular hairs; stamens 3 or 6, equal or unequal; anther dehiscent by 1 or 2 pores; ovary 3-celled. Capsule apically 3 (-6)-valved; seed cuneate.

Species about 170, in tropical Asia. One in Taiwan.

***Sonerila tenera* Royle** Ill. Bot. Himal. t. 45. 1834 et 215. 1835; Backer and Bakh. van den Brink Jr. Fl. Java. 1963; Chen. Fl. Reip. Popu. Sinic. 53(1): 135-293. 1984.

三蕊草 Figs. 1-5

Small herbs, simple or springly branched, 4-8 cm tall. Stems quadrangular, purple, with narrow winged and spreading glandular hairs. Leaves opposite, thin membranaceous, oblong

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to ovate, 3-nerved, 0.5-2.5 cm long, 0.4-1.1 cm wide, the apex acute, or obtuse, the base cuneate, the margin dentate-ciliate with a bristle on the apex of tooth, erect stiff hairs on both surfaces; petioles 1-3 mm long. Flowers small, in terminal cincinnus, 2-6-flowered, peduncles 4-9 mm long, with spreading glandular hairs; pedicels 1-3 mm long, with spreading glandular hairs; calyx tubular, 3-4 mm long, shallow 3-angled, 6-nerved, veins with glandular hairs; calyx lobes widely deltoid; petals 3, pinkish-white, oblong, ca. 3 mm long, ca. 2 mm wide, the apex mucronate, the base short clawed, the midrib of lower surface purple, with spreading glandular hairs; stamens 3, equal, filaments ca. 1.5 mm long, anthers opening at the top by a pore, ca. 0.8 mm long; pollen grains 6-heterocolpate (3-colpate with 3-pseudocolpi), isopolar; prolate in polar view, colpi long, extending nearly to the poles, pseudocolpi, depressed, sexine striate; style ca 2 mm long. Capsule obconical, 3-angled, ca. 4 mm long, 2 mm long wide.



Fig. 1. Photograph of *Sonerila tenera* Royle.

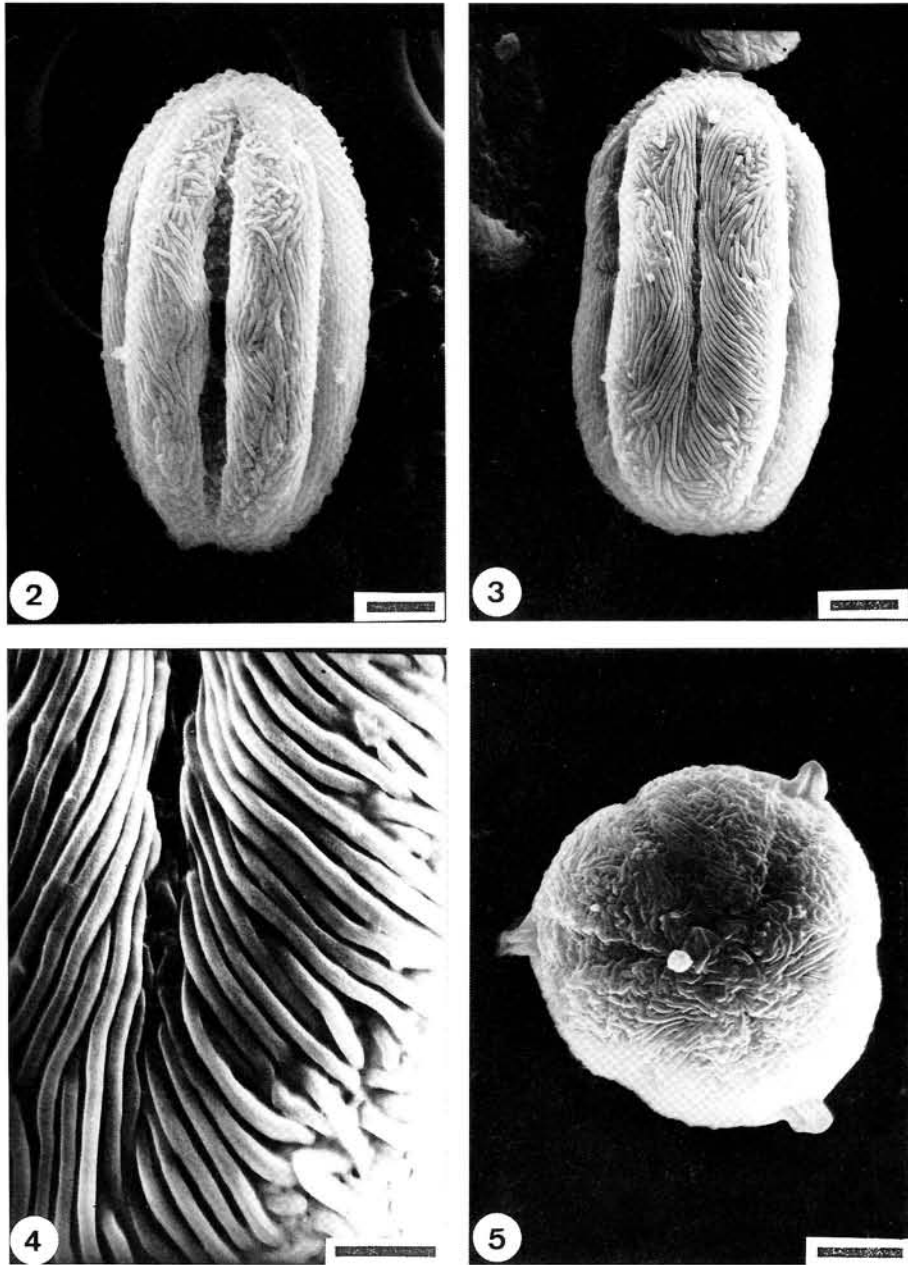
Distribution: India, Burma, Vietnam, Indonesia, the Philippines, and S. China (Yunnan, Guangdong, Guangxi, and Jiangxi). Taiwan, found on the Chuyunshan Forest Road, Kaohsiung Hsien.

Specimen examined: Kaohsiung Hsien: Taoyuan Hsiang, Chuyunshan Forest Road. 25 Oct 1999, T. H. Hsieh and K. C. Yang 2085 (TAI, HAST).

Note: The discovery of *Sonerila tenera* Royle in Taiwan adds a new genus to the flora of the island. It is very rare and grows on the stone wall covered by mosses between 800 and 900 meters.

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Figs. 2-5. SEM micrographs of pollen grains of *Sonerila tenera* Royle. 2: Equatorial view; 3: Equatorial view, showing mesocolpium area with pseudocolpi; 4: Equatorial view, showing mesocolpium area with long striate sexine; 5: Polar view, showing circular amb and 6-heterocolpate (3-colpate with 3-pseudocolpi). Scale bar = 3 μm , except fig. 4 = 1 μm .

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台灣新紀錄屬植物—三蕊草（野牡丹科）

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摘 要

三蕊草 (*Sonerila tenera* Royle) 為野牡丹科之小形草本植物，本種分佈於印度、緬甸、越南、印尼、菲律賓和中國南部，其花為三數花，與台灣產本科之植物易於區別。台灣首次發現於南部高雄縣出雲山林道，位於林道邊坡上與苔蘚類混生。本文描述其植株形態特徵、花粉形態、生育地狀況、並附其照片。對台灣而言，此發現不僅增加一新紀錄種，且為新紀錄屬。

關鍵詞：三蕊草，新紀錄屬，野牡丹科。

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