

Two New Records of *Scleria* Bergius (Cyperaceae) in Taiwan

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ABSTRACT: *Scleria laeviformis* Tang & Wang and *S. scrobiculata* Nees & Mey. ex Nees are newly recorded sedges in Taiwan. Descriptions and line drawings are provided for both species. A key to species of *Scleria* in Taiwan is also provided.

KEY WORDS: Cyperaceae, *Scleria laeviformis*, *S. scrobiculata*, Taiwan.

INTRODUCTION

The genus *Scleria* (Cyperaceae) in Taiwan has revised by Koyama (1978), and there were 6 species recognized by him. In the course of preparing the revision of Taiwanese *Scleria*, several collections representing two new records were found. There are *Scleria laeviformis* Tang & Wang and *S. scrobiculata* Nees & Mey. ex Nees. Descriptions, line drawings of both species, and a key to species of *Scleria* in Taiwan are provided.

TAXONOMIC TREATMENT

Key to species

1. Inflorescence very loose, with spike-like branches; hypogynium reduced *S. lithosperma*
1. Inflorescence paniculate; hypogynium well developed.
 2. Middle leaves of fertile culms clustered in groups forming pseudo-whorls.
 3. Hypogynium cup-like, covering at least 1/2 of achene; achenes brownish to grayish-black
..... *S. sumatrensis*
 3. Hypogynium developed into a 3-lobed disk; achenes whitish to grayish *S. scrobiculata*
 2. Leaves distinctly alternate, not in pseudo-whorls.
 4. Slender annual, without conspicuous rhizome, 10-70 cm tall.
 5. Disk-lobes elongated, acute at apex; achenes globose to somewhat depressed, smooth to cancellate and pubescent *S. biflora*
 5. Disk-lobes round, obtuse at apex; achenes globose to slightly oblong, smooth to rugulose *S. rugosa*
 4. Perennial with woody, thick rhizome, 30 cm to 2 m tall.
 6. Disk-lobes ovate to elongating deltoid, acute at apex; culms 30-90 cm long *S. levis*
 6. Disk-lobes round to ovate, obtuse at apex; culms 60-200(-250) cm long.
 7. Leaves pale green, pubescent on both surfaces, 10-25 mm wide, acute at apex but not elongated; spikelets greenish to olivaceous brown *S. laeviformis*
 7. Leaves dark green, glabrous, 4-20 mm wide, gradually narrowed into a very long apex; spikelets purplish to dark brown *S. terrestris*

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Sclera laeviformis Tang & Wang, Fl. Reipub. Pop. Sin. 11: 215. *pt.* 59, 1-3. 1961.

光果珍珠茅 Fig. 1

Sclera terrestris auct. non (L.) Fasset: T. Koyama, Fl. Taiwan 5: 197. 1978, *pro parte*.

Perennial. Rhizomes rather thick, short creeping, woody. Culms robust, erect to scrambling on bushes, 60-250 cm tall, 5-15 mm thick, pubescent, scabrous on angles. Leaves 10-25 mm wide, herbaceous to slightly coriaceous, puberulent, scabrous on margins and along costas, acutish at apex, pale green; sheaths trigonous, usually broadly winged, scabrous on angles; contraligules reddish brown to purplish-brown, round to somewhat depressed, pubescent. Inflorescence consisting of 3-5 compound panicles, 15-50 cm long; panicles single or binate, peduncles ascending, puberulent, scabrous, long-exserted; lowest bracts slightly surpassing the inflorescence. Spikelets unisexual or gynodioecious, greenish to olivaceous brown, single or binate; Achene bearing spikelets broadly ovoid. Staminate spikes lanceolate, 3-4 mm long; stamens 3. Achenes globose to ovate, 2.5-3 mm long, terete to obtusely trigonous, white to grayish, shining, smooth; hypogynium shallowly 3-lobed, lobes appressed to achene, deltoid, acute at apex.

Southern and southwestern China. Taiwan, in lowland forest and thickets.

Specimen examined: Nantou: Liyutan, Wang & Lin 3374(TNM); Pingtung: Nanjenshan, Kuoh 4122 (TAI) & Leong 1838 (NCKU), Kaoshifo, Leong 1628(HAST).

Note: According to T. Koyama (1978), this species is similar to *S. terrestris* (L.) Fasset, but can be distinguished by its pubescent and broader leaves from the later.

Scleria scrobiculata Nees & Mey. *ex* Nees in Wight. Contrib. 117. 1834; Kern in Blumea 11: 184, *f.* 6b. 1961; Simpson & Koyama, Fl. Thailand 6(4): 440. 1998. 輪葉珍珠茅 Fig. 2

Perennial. Rhizomes short creeping, woody. Culms robust, loosely tufted, erect to scrambling on bushes, 80-200 cm tall, 4-8 mm thick, scabrous on angles. Leaves in the middle part of culms clustered in pseudo-whorls of 3-5, rather many, 4-20 mm wide, herbaceous to slightly coriaceous, glabrous, scabrous on margins and along costas, gradually narrowed into a very long apex; sheaths trigonous, densely overlapping, narrowly to broadly winged, scabrous on angles; contraligules dark brown, round to somewhat depressed, densely ciliate on margin. Inflorescence consisting of 3-5 dense compound panicles, 20-50 cm long; panicles single or binate, peduncles spreading, exserted, scabrous; lowest bracts slightly longer than the inflorescence. Spikelets unisexual, single or in clusters of 2-3; pistillate spikelets ovoid, 3.5-4 mm long. Staminate spikes lanceolate, 3.5-4 mm long; stamens 3. Achene ovoid to broadly ovoid, terete, 2-3 mm long, white to slightly grayish, shining, smooth to scrobiculate, umbonulate, sparsely puberulent; hypogynium 3-lobed, thick, deltoid, acute or dentate at apex.

S. E. Asia. Taiwan represents the northern distribution limit of this species, in forest and thickets on Lanyu Is.

Specimen examined: Taitung: Lanyu Is., T. Y. A. Yang *et al.* 11850 (TNM), Leong 1939 (NCKU).

Note: In Taiwan, pseudo-whorls leaves also occur in *S. sumatrensis* Retz., however *S. sumatrensis* Retz. can be easily recognized by the cup-like hypogynium.



Fig. 1. *Scleria laeviformis* Tang et Wang. 1. habit; 2. part of inflorescence; 3. part of rachis, showing female and male spikelets; 4. achene with hypogynium; 5. contraligule.



Fig. 2. *Scleria scrobiculata* Nees & Mey. ex Nees. 1. inflorescence; 2. part of culm with pseudo-whorled leaves; 3. contraligule; 4. part of rachis, showing female and male spikelets; 5. achene with hypogynium; 6. surface of achene; 7. apex of hypogynium-lobe.

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台灣產珍珠茅屬新記錄

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摘 要

本文報導光果珍珠茅(*Scleria laeviformis* Tang & Wang)及輪葉珍珠茅(*S. scrobiculata* Nees & Mey. ex Nees)為最近發現於台灣之新記錄莎草科植物(Cyperaceae)。其中輪葉珍珠茅在台灣的發現是本種分布的北限。文中並給予描述、手繪圖及台灣產珍珠茅屬植物之檢索表。

關鍵詞：莎草科，光果珍珠茅，輪葉珍珠茅，台灣。

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