Research paper

*Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe (Malvaceae), A New Recorded Plant in Taiwan

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【Abstract】*Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe, a species of Malvaceae can frequently be found from seashore to 1,000 m altitude in Taiwan, but has been often misidentified and attributed to *S. rhombifolia* L. var. *rhombifolia* Though they are alike in outward appearance, *S. rhombifolia* L. var. *maderensis* (Lowe) Lowe can easily be distinguished by the number of carpels and characteristic of mericarps. And it is here of proposed and described as a new recorded variety in Taiwan.

【Key words】Malvaceae, *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe, Taxonomy, New recorded, Taiwan.

研究報告

台灣新紀錄錦葵科植物─單芒金午時花

林惠雯¹曾彥學²

【摘要】本篇報告台灣一新紀錄錦葵科植物單芒金午時花 (*Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe), 本種常見於台灣全島中、低海拔的山麓地區，因其形態特徵與菱葉金午時花 (*S. rhombifolia* L. var. *rhombifolia*) 極為相似，經常被混淆。但兩分類群可藉由心皮數目及分果片的形態加以區分，前者每一朵花具10-12枚心皮且每一分果片僅具一芒刺而後者每一朵花具8-10枚心皮且每一分果片具二芒刺。

【關鍵詞】錦葵科、單芒金午時花、植物分類學、新紀錄、台灣

INTRODUCTION

Recently, 8 taxa were recognized in the second edition of Flora of Taiwan (Boufford et al. 2003). One naturalized species, *S. spinosa* L., was published by authors (Lin et al. 2010). In our recent revision of *Sida* of Taiwan 11 taxa of *Sida* were treated and one sharply distinct species was discovered. Consultation of original materials and the recent monograph on *Sida* (Henry 1896, Matsumura & Hayata 1906, Kawakami 1910, Hayata 1911, Sasaki 1928, Mori 1935, Masamune 1954, Hatusima 1960, Li 1963, Chang 1977、
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TAXONOMIC TREATMENT

Perennial shrubs, stems erect, up to 2 m high, many branches, minutely stellate-pubescent. Leaves alternate; blade narrowly oblong or elliptic-lanceolate, 2-9.5 cm long, 1-4.6 cm wide, obtuse at apex, rounded at base, serrate, basally 3-veined, minutely stellate-tomentose beneath, glabrescent above; petioles 0.3-0.4 cm long, occasionally short spines at base; stipules 0.5 cm long, linear. Inflorescence axillary, solitary, peduncle 0.8-1.4 cm, pedicel 0.4-0.6 cm; without epicalyx; calyx campanulate, joined, lobes 5, triangular; corolla yallow, ca. 1-1.3 cm in diameter, petals 5, subcordate; 0.7 cm across, minutely tomentose, gynoecium, stamen connivent into column at base, filaments 30, glandular-hairy; pollen grains ca. 65.4 μm, spheroidal, porate, spines on the surface; stigma white-yellow, style 10-12. Fruits schizocarpic, nearly globose, 0.5-0.7 cm across, mericarps 10-12, trigonous, apically 1-awned, the awn ca. 2 mm long, stellate-hairy; dorsally reticulate-veined.


Notes: Sida rhombifolia L. var. maderensis (Lowe) Lowe closely resembles S. rhombifolia L. var. rhombifolia, but it is distinct for having one awn of mericarp (Fig. 4.); 10-12 pistil; 30 stamen; 10-12 mericarps (vs. two awns of mericarp; 8-10 pistil; 20-25 stamen; 8-10 mericarps) (Table 1.).

Table 1. Comparision of Sida rhombifolia L. var. maderensis (Lowe) Lowe and S. rhombifolia L. var. rhombifolia (Fig. 4.)

<table>
<thead>
<tr>
<th>Species</th>
<th>S. rhombifolia var. maderensis</th>
<th>S. rhombifolia var. rhombifolia</th>
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</thead>
<tbody>
<tr>
<td>Pisitil</td>
<td>10–12</td>
<td>8–10</td>
</tr>
<tr>
<td>Stamen</td>
<td>30</td>
<td>20–25</td>
</tr>
<tr>
<td>Number of carpels</td>
<td>10–12</td>
<td>8–10</td>
</tr>
<tr>
<td>Awn of mericarps</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Distribution: The species Sida rhombifolia var. maderensis native to Taiwan, very common on sunny open areas as roadsides, forest margins and waste places, throughout this island from seashore to 1,000 m altitude (Fig. 5.).
Fig. 1. *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe A: Habit; B: Leaf adaxial surface; C: Leaf abaxial surface; D: Flower; E: Petal; F: Calyx; G: Fruit; H: Mericarps; I: Seed.
Fig. 2. *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe A: Habitat; B: Habit; C: Types of leaves; D: Flower; E: Fruit; F: Mericarps.
Fig. 3. The specimen of *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe.
Fig. 4. Compare with mericarps morphology between (A) *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe and (B) *S. rhombifolia* L. var. *rhombifolia*.

Fig. 5. Distribution of *Sida rhombifolia* L. var. *maderensis* (Lowe) Lowe in Taiwan.
LITERATURE CITED
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