

Thunbergia fragrans Roxb. (Acanthaceae) : A Newly Naturalized Plant in Taiwan

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Abstract

Thunbergia fragrans Roxb. is recently found naturalized in the central part of Taiwan. It is very similar to *T. alata* Bojer ex Sims and can be distinguished by its white corolla and petioles without wings. The growth environments, the periods of the flowering and fruiting, distribution, photographs, a detail line drawing, along with some taxonomic notes are given.

Key words: *Thunbergia fragrans*, taxonomy, distribution, Taiwan

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This paper describes a new exotic plant *Thunbergia fragrans* Roxb. in Taiwan. *T. fragrans* is closely related to *T. alata* Bojer ex Sims of Taiwan (Ou 1983), but the two species are easily distinguishable. Recently, we found that *T. fragrans* occurred in the central part of Taiwan. The specimens examined were deposited in the Herbarium of Department of Forestry, National Chung-Hsing University (TCF) and the Herbarium of Division of Botany, Taiwan Endemic Species Research Institute (TESRI). The morphology, growth environments, the periods of the flowering and fruiting, distribution, photographs and a detail line drawing were provided.

Thunbergia fragrans Roxb., in Lodd. Bot. Cab. t. 323. 1819. 碗花草 Fig. 1.

Slender perennial twiner. Stems square, somewhat hairy in young. Leaves opposite, lanceolate-ovate to triangular ovate, about 8.5 cm long, 4.5 cm wide, acute at apex, cuneate or obtuse to subcordate at base; margins exsculptate-dentate, green, 5-7 nerved; petioles about 4 cm, without wings. Peduncles axillary, one-flowered; bracts 2; calyx small, 10-toothed; corolla white, with a long velutinous tube, 5-lobed; stamens didynamous, inserted on the tube of the corolla; filaments slender, 2 mm or 5 mm long; anthers basifixed, 3 mm long; style filiform, 15 mm long; stigmas broad and concave. Fruit a capsule, hairy, subglobose, bearing a long strong solid beak; seeds per cell 2, subglobose.

Distribution : Native to India, Vietnam (Roxb.)



Fig. 1. *Thunbergia fragrans* Roxb. (Acanthaceae) (1. flowering branch; 2. leaf; 3. bracts; 4. immature fruit; 5. flower; 6. pistil; 7. stamen; 8. calyx; 9. convolute aestivation; 10. mature fruit; 11. convolute aestivation without bract).

1819), and China (Yunnan, Kueichou, Szuchuan, Kuangtung) (Institute of Botany of Chinese Academy of Sciences 1994), now is introduced to Taiwan.

Habitat and ecology : It grows on grassland in the piedmont area at an elevation of about 250m. It blooms in June to October, and produces fruits in August to December.

NANTOU : Chichi, Tseng s.n. Feb. 28, 1999 : Tseng 2365, Jun. 4, 2000 : Tseng 2591, Aug. 18, 2000 : Tseng 2675, Aug. 4, 2001(TCF, TESRI).

Key to *Thunbergia* in Taiwan

- 1. Flowers white, petioles without wings
..... *T. fragrans*
- 1. Flowers yellow, petioles winged
..... *T. alata*

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Roxb., A. 1819. Lodd. Bot. Cab. t. 323.



Fig. 2. Whole plants of *Thunbergia fragrans*.



Fig. 3. Flowers of *Thunbergia fragrans*.



Fig. 4. Fruits of *Thunbergia fragrans*.