

Lobelia cliffortiana L. (Campanulaceae) a Newly Naturalized Plant in Taiwan

台灣桔梗科的新歸化植物—克氏半邊蓮

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Abstract

Lobelia cliffortiana L. is a weed belonging to the family Campanulaceae and native to Central America. It was recently found in the central region of Taiwan. This paper describes this newly naturalized weed with field photographs for aiding its identification.

摘要

本文報導最近在台灣中部發現原產於中美洲之新歸化種—克氏半邊蓮(*Lobelia cliffortiana* L.)。克氏半邊蓮為桔梗科植物，有可能成為入侵植物，宜早防除。本文提供本植物的描述、彩色照片以資辨識。

Key words: Campanulaceae, *Lobelia cliffortiana*, naturalized plant, Taiwan, taxonomy

關鍵詞：桔梗科、克氏半邊蓮、歸化植物、台灣、分類

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Introduction

Seven genera, 13 species, and a naturalized species have been reported for the family Campanulaceae in the second edition of “Flora of Taiwan” (Lammers 1998). Of them, the genus *Lobelia* has five known species. In our recent plant inventory survey of Taiwan, an additional weedy species *Lobelia cliffortiana* L. was found to have naturalized in the central region of the island. This paper provides a taxonomic account of *L. cliffortiana* with the field photographs for aiding identification of this potentially aggressive weed.

Taxonomic Treatment

Lobelia cliffortiana L., Sp. Pl. 2: 931. 1753. 克氏半邊蓮(新擬中名) Fig. 1.

Lobelia tetragona Bl., Bijdr. 729. 1826.

Herbs annual; stem erect, branched, angular, glabrous. Leaves alternate; petiole 0.5-2 cm, semicircle, slightly winged; blades broadly ovate, 1.5-2.5 cm long, 1-2 cm wide, apex acute to obtuse, base obtuse to cordate, margins serrate; lateral veins ca. 3 pairs. Racemes terminal; florets numerous up to 50; peduncle long or short, up to

6 cm; flower buds slender, light pink. Bract 1, acicular, ca. 5 mm long. Pedicel slender, ca. 1 cm long, glabrous. Calyx 5-lobed, lobes elongate deltoid, ca. 3 mm long, 0.8 mm wide. Corolla mauve, bilaterally symmetric, base connate into a tube, 4 mm long, with 2 lips; lower lip larger, with 3 lobes, each oblong, ca. 2 mm long, 1 mm wide, faucal part of each lobe corniculate, green; upper lip with 2 lobes, each deltoid-acicular, ca. 1.2 mm long, 0.3 mm wide. Stamens 5, exerted, filaments light pale purple, ca. 3 mm long; base separate, two on abaxial side, densely pubescent at base, the rest 3 glabrous. Anthers connate around the style, dark purple, ca. 1 mm long; upper three abaxially pubescent, apex glabrous; lower two nearly glabrous, with long hairs apically, perigynous, base fused with calyx tube, glabrous, angulate; style 3 mm long, glabrous; stigma shallowly 2-lobed, lower part with a pubescent ring; ovary 2-locular, placentation axile, ovules many. Capsule oblong-globose, ca. 7.7 mm long, 2.7 mm in diameter.; seeds numerous, each small, 0.4 mm long, 0.2 mm across, oblong-globose, glabrous.

Specimen examined: TAIWAN. Nantou County: Lugu Hsiang (鹿谷鄉), Alt. 376m, 1 April 2008, *Hsu 13726* (TAIE).

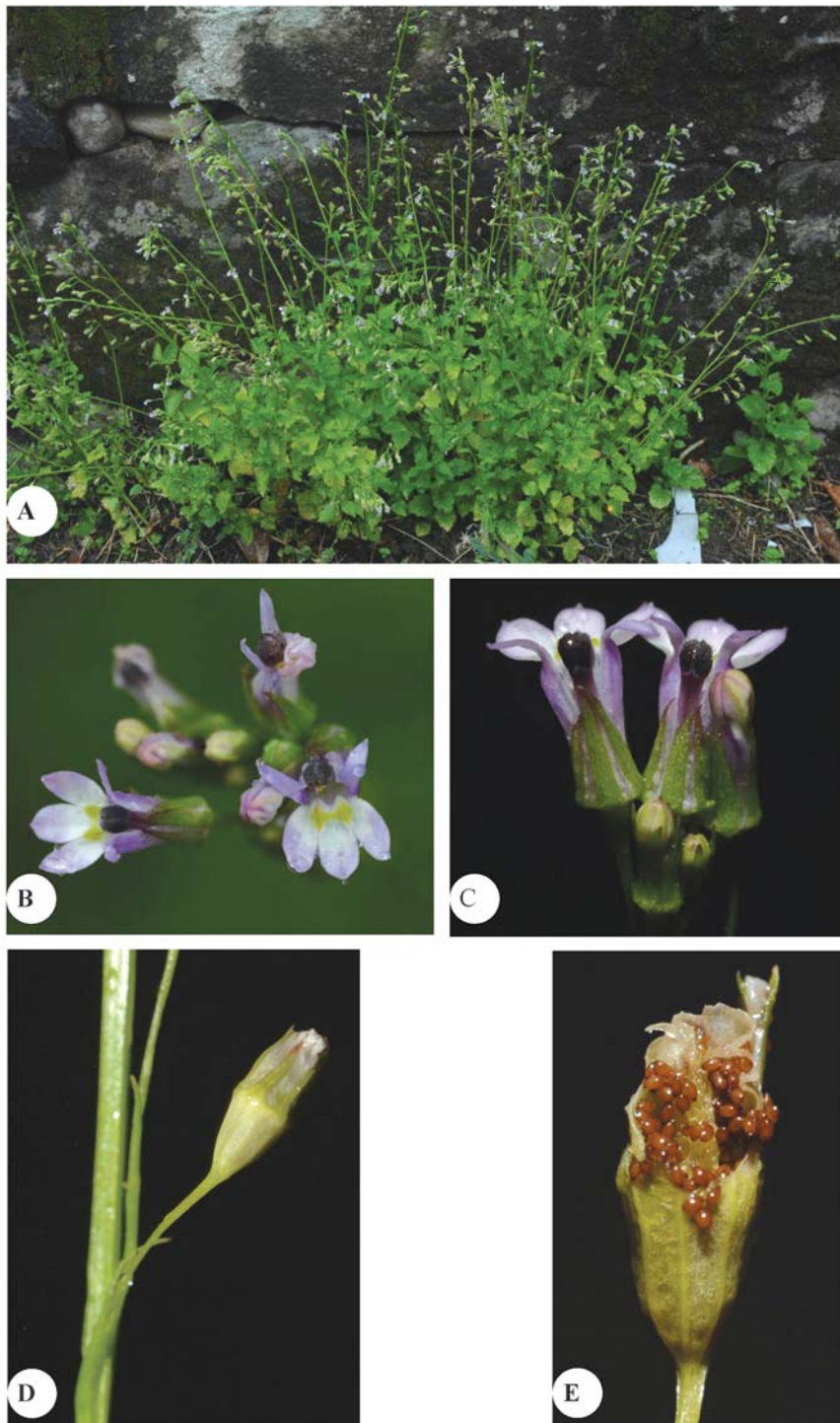


Fig. 1. Habit (A), adaxial (B) and abaxial (C) views of the flowers, and fruit (D) and seeds (E) of *Lobelia cliffortiana* L.

Remarks: *L. cliffortiana* is native to Cuba, Hispaniola and Jamaica (McVaugh 1940). It has been introduced as an ornamental plant to Old World on very early dates and seems to have frequently been naturalized (Moeliono and Tuyn 1960).

For the genus *Lobelia* in Taiwan, three

species, *L. cliffortiana*, *L. alsinoides* subsp. *hancei* and *L. seguinii*, are shared with a character of erect stems. Their salient characters are compared in Table 1. *L. cliffortiana* has petiolate leaves distinguishable from *L. alsinoides* subsp. *hancei* and *L. seguinii* that have sessile leaves.

Table 1. A comparison of salient characters among *L. cliffortiana*, *L. alsinoides* ssp. *Hancei*, and *L. seguinii* from Taiwan

Characters	<i>L. cliffortiana</i>	<i>L. alsinoides</i> ssp. <i>hancei</i>	<i>L. seguinii</i>
Leaf	Distinctly petiolate	Sessile	Sessile
Length (cm)	0.5-2	0.4-3.5	6-23
Flowers	Many (to 50), in terminal racemes	Solitary, axillary	In terminal racemes
Corolla length (cm)	0.4	0.5-0.8	2.5-3
Anthers	Only the lower two with apical trichomes	All with apical trichomes	Only the lower two with apical trichomes
Seeds	Globose-oblongoid	Distinctly trigonous	Ellipsoid

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