A new species of Melampyrum (Orobanchaceae) from Southern Korea

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Abstract

A new species, Melampyrum koreanum K.-J. Kim & S.-M. Yun, is described and illustrated. The new species is similar to M. roseum Maxim. in general habit, but the new species has a corolla tube and style up to 3 cm long. The new species occurs on one of the islands of the southern Korean peninsula.

Key words: Melampyrum, Korea, Orobanchaceae

Introduction

Melampyrum L. is a genus of approximately 20 species of herbaceous flowering plants in the family Orobanchaceae (formerly included in the family Scrophulariaceae sensu lato, Hong et al., 1998). The genus is native to temperate regions of Eurasia and North America. The species are hemiparasites, obtaining mineral nutrients and water from their host plants. However, they are facultative hemiparasites, meaning they can complete their life cycle without parasitizing host plants. As a part of the Flora of Korea project, we revised the genus Melampyrum from Korea. During extensive field collection of Orobanchaceae in Korea, we collected several specimens of distinctive flower form of Melampyrum from a small island of South Korea. After comparative studies of the numerous Asian specimens from K, KUN, IBSC, MO, PE and TI herbaria, we concluded that the newly collected specimens represent a new species. The new species has the longest corolla tube and style within Melampyrum.

Melampyrum koreanum K.-J. Kim & S.-M. Yun, sp. nov. Fig. 1 A–K

M. roseum Maxim. similis sed corolla tubus et stylus 25–30 mm longus differt.


Herbs, annuals, hemiparasites; glabrous or pubescent; stems erect, 50–90 cm tall, with many opposite branches. Leaves opposite, glabrous; lower leaves lanceolate, 1.0–1.5 cm wide, 4.0–5.5 cm long, petiole 0.4–0.9 cm long, mid-vein distinct on the lower surface, lateral veins opaque, base acute, tip acute, margin entire; upper leaves lanceolate, 0.5–1.0 cm wide, 2.0–3.0 cm long, petiole 2–4 mm long, mid-vein distinct on the lower surface, lateral veins opaque, base acute, tip acute, margin entire; bract-like leaves triangular-lanceolate, one or two pairs with setose teeth at base, 4–6 mm wide at base, 10–15 mm long, petiole 2–4 mm long, mid-vein distinct on the lower surface, base truncate, tip acute-acuminate, sometimes upper leaves and bract-like leaves are indistinctive. Flowers solitary in axils of upper bract-like leaves or congregated into terminal spikes;