



## A new subspecies of *Crepidium commelinifolium* (Malaxideae; Epidendroideae; Orchidaceae)

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### Introduction

*Crepidium commelinifolium* (Zollinger & Moritzi in Zollinger 1844: 402) Szlachetko (1995: 125) belongs to sect. *Commelinodes* (Schlechter 1911: 124) Szlachetko (1995: 123), subsect. *Commelinodes* (Margońska & Szlachetko, 2010: 4) and occurs mainly in Java but also in Borneo (Malaysia, Brunei, Indonesia), at elevations ranging from 200–2,000 m above sea level. This terrestrial orchid species forms colonies that are sometimes dense and cover relatively large areas, but it always occurs in shaded to deeply shaded locations that are moist or wet. Owing to its occurrence at a wide range of altitudes and on various substrates etc., it came as no surprise that this species shows variation. For years, I have observed plants of this species produce leaves of two kinds. In most plants, including the type-specimens, the leaves are almost cordate to ovate, shortly attenuate, acute, with a cordate base and simple, entire margins. A second group of plants, however, possesses oblong-ovate to ovate-lanceolate leaves with undulate margins. I have never observed populations of both groups occurring at the same location. Nevertheless, both groups are well represented in herbarium collections, both as dried, pressed specimens and as liquid-preserved material.

While working on the taxonomy of Orchidaceae specimens deposited at Botanisches Museum Berlin–Dahlem, I had occasion to visit the living collection of Malaxidinae cultivated at Berlin–Dahlem Botanischer Garten. There, I found very rich collections of *Crepidium commelinifolium* growing in a few glasshouses. One of these contained representatives of both of the above groups, and they had grown there together in identical substrate and under the same conditions, side by side, for at least six years, flowering regularly every year. This indicates that differences in their vegetative morphology is genotypic (irreversible, genetically determined variation), not phenotypic (reversible variation dependent upon prevailing environmental factors). Consequently, I propose that these two groups of *Crepidium commelinifolium* be assigned separate subspecies.

*Crepidium commelinifolium* (Zollinger & Moritzi 1844: 402) Szlachetko (1995: 125).  
(Fig. 1. Margońska & Szlachetko (2010: 2); Fig. 2.

Homotypic synonyms:—*Microstylis commelinifolia* Zoll. & Moritzi. *Platyclinis commelinifolia* (Zoll. & Moritzi) Bentham (1881: 295). *Malaxis commelinifolia* (Zoll. & Moritzi) Kuntze (1891: 673).

Lectotype (designated by Margońska *et al.* 2012: 171):—INDONESIA. Java, Salak, Mount “Tjappas”, 15–18 November 1840, *Zollinger 1748* (P!, isolectotypes BM–000082923!, K–L!, FI!, WR–40923!).

Shoot elongate, 1–5 (ascending part, without inflorescence) × 0.2–0.35 cm, creeping, often branched. Leaves many, leaf blade ca. (1)1.5–2(2.2) × (0.6)1.2–1.8(2) cm, oblique, nearly cordate to ovate, shortly attenuate, acute, cordate at base, margins entire and simple, green, sometimes pale purple flushed. Inflorescence (8)15–25 cm, erect, slender, green or purple to violet flushed; raceme 5–10(15) cm, 10–20(30)-flowered, lax, purple to violet. Flowers ca. 0.3–0.35 cm in diameter. Dorsal sepal oblong to oblong-ovate, acute to subacute. Lateral sepals oblique, ovate, obtuse to subacute. Petals oblong, lanceolate to oblanceolate, obtuse to acute. Lip 0.31–0.36 cm × 0.28–0.3 cm, obovate in general outline; mid-lobe semi-ovate, apically split (up to ca. 1/4 of its length), each tooth triangular, obtuse to subacute, teeth convergent; both lateral lobes triangular, distally with each internal tooth (or 2), each external tooth: oblique, broader than the inner, auricles occupying over 1/3 of the lip length, erect, obtuse; cavity 0.08–0.12 cm

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