



A new species of *Chlorophytum* (Asparagaceae) from southern Western Ghats of India

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The genus *Chlorophytum* Ker Gawler (1808: 1071) is one of the major genera of family Asparagaceae (APG 2009) with about 212 taxa (Kativu & Nordal 1993, Govaerts *et al.* 2012). It is distributed in the Old World tropics especially in Africa and India (Mabberley 2005). It is represented by 17 species in India of which 15 occur in the Western Ghats (Malpure & Yadav 2009). Characters like anther filament ratio, anther filaments, number of tepal nerves, pedicel articulation and somatic chromosome number are taxonomically important (Adsul *et al.* 2014).

The Western Ghats lies in the western part of peninsular India in a series of hills stretching over a distance of 1,600 km from north to south and covering an area of about 160,000 km². Within this area, the Palakkad district of Kerala is very rich in endemics and endangered species (Sasidharan 2004, 2013). While working on the floristic diversity of high mountains in Dhoni and Muthikulam forests (Palakkad District), the authors collected an interesting specimen of *Chlorophytum* from the grasslands of Palamalai hills and later from Elival hills of Muthikulam. The study of relevant literature (Dalzell 1850, Baker 1875, 1894, Hepper 1968, Ansari *et al.* 1970, Meerts *et al.* 2012, Nordal & Poulsen 1998, Poulsen & Nordal 1999, 2005, Sasidharan 2004, 2013, Sardesai *et al.* 2006, Malpure & Yadav 2009, Bjora *et al.* 2012, Chandore *et al.* 2012) revealed that these plants show affinities with *C. sharmae* Adsul *et al.* (2014: 9503) but show many morphological differences. These plants are described here as a new species, *C. palghatense* sp. nov.

Description of the new species

Chlorophytum palghatense K.M.P. Kumar & Adsul *sp. nov.* (Figs. 1, 2)

It is distinct from *C. sharmae* for the absence of root tubers; broadly lanceolate leaves with entire margins; pedicel articulation close to flower; obtuse anther apex and glabrous stigma.

Type.—INDIA. Kerala: Palakkad district, Dhoni hills, Palamala, ± 1900 m, N10° 54' 37.7" E 076° 37' 41.4", 28 September 2013, K.M. Prabhu Kumar 7466 (holotype, CMPR!, isotypes, CALI!, MH!, SUK!).

Perennial herb, ca. 35 cm tall. Roots up to 16 cm long, 6–11 per plant, fibrous. Leaves 14–24 × 2.2–3.2 cm, 8–16 per plant, rosette, spreading, lanceolate, 11–12 veined, sessile, glabrous and dull green above, very small appressed white hairs beneath; margin entire, hyaline, apex acute-acuminate. Scape 18–30 cm long, solitary, unbranched, bracteate, flowering part 8–14 cm long, flowers in alternate to sub-opposite, 2–4 flowered clusters; sterile bracts 4–6 × 0.7–0.9 cm, 2–3 per scape, triangular, apex acute, glabrous. Flower 2.8–3 cm across, white, bracteate, pedicellate. Bract 3–3.5 × 0.7–0.8 cm, pyriform, acute at apex, glabrous. Pedicel 1.2–1.4 cm long, articulation close to flower, upper part of pedicel articulation 1–1.5 mm, swollen, cylindrical, glabrous, pedicel below articulation cylindrical, 1.2–1.25 cm in length. Perigone segments 6, in two whorls of 3 in each, recurved; outer perigone segments 0.9–1.1 × ca. 0.3 cm, 5-nerved, broadly elliptic-lanceolate, glabrous, white, margin hyaline, obtuse or acute at apex; inner perigone segments 0.9–1.1 × ca. 0.3 cm, 3-nerved, elliptic-lanceolate, glabrous, white, margin hyaline, obtuse at apex. Stamens 6, 8–8.2

mm long, divaricated; filaments 4–5 mm long, longer than the anthers, smooth, white; anthers 3.1–3.2 mm long, obtuse, dull yellow. Ovary 1.5–2 mm long, elliptic, sessile, glabrous, green; septal nectaries conspicuous; style 6–6.2 mm long, straight, persistent, white; stigma glabrous. Capsule 6–7 × 8–9 mm, triquetrous. Seeds ca. 0.3 cm across, 2–4 in each cell, reniform, discoid, black. Seed testa granulate.

Flowering and Fruiting:—September–November.

Etymology:—The specific epithet ‘palghatense’ indicates the type locality of the taxon, from ‘Palghat’ (Palakkad) district of Kerala.

Distribution and ecology:—*Chlorophytum palghatense* grows in grass lands of high mountains of Palamala hills of Dhoni forest and Elival hills of Muthikulam forests of Palakkad District of Kerala at about 2150 m.

Additional specimens examined (paratypes):—INDIA. Muthikulam forests, Elival hills, ± 2100 m 23 November 2013, K.M. Prabhu Kumar & V.S. Hareesh 7745 (CMPR!).

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