



## Xerophyte *Caralluma stalagmifera* var. *longipetala* (Asclepiadaceae): a new record to the flora of Karnataka, India

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*Caralluma* R. Br is a xerophytic succulent genus of Asclepiadaceae (sometimes treated as subfamily Asclepiadoideae of family Apocynaceae) and include about 120 taxa, with distribution in Africa, Asia, South Africa and southwestern Europe and Saudi Arabia (Move & Liede 2002). Gilbert (1990) carried out comprehensive studies of *Caralluma* spp. wherein he categorized 57 species in several subgenera. Later, Plowes (1995) divided the genus *Caralluma* into 17 genera based on morphological studies. Among them, six were monotypic. Recently, Meve & Leide, (2004), using molecular studies based on cladistic analysis demonstrated that the smaller units of *Caralluma* spp., compared well with that of morphologically divergent and geographically distributed races.

In India, it is represented by 13 species and five varieties (Jagtab & Singh 1999). Sharma et al. (1984)

treated the genus *Caralluma*, with five species and two varieties, in flora of Karnataka analysis. Kushalappa (1996) recorded *Caralluma adscendens* (Roxb.) Haw. along with *C. adscendens* var. *attenuata* and *C. umbellata* from Tumkur District of Karnataka. Gravely & Mayuranathan, (1931) discussed the morphological differences between *C. adscendens* var. *attenuata* & *C. adscendens* var. *imbriata*. *Caralluma nilagiriana* was a new species reported (Kumari & Rao 1976) from Nilgiri Hills and is considered endemic to Tamil Nadu (Ramachandran et al. 2011). Bhaskar & Kushalappa, (1989) reported *Caralluma nilagiriana* as a new record from Karnataka and their specimens are deposited in UAS Herbarium, GKVK, in Bangalore. Plowes (1995) transferred *C. nilagiriana* into *Boucerosia nilagiriana* (Kumari & Subba Rao) Plowes. *Caralluma campanulata* (Wight) N.E.Br. (= *Boucerosia campanulata*, Wight) is now considered as synonym of *Boucerosia umbellata* (Roxb.) Wight & Arn. Similarly, *C. umbellata* (Roxb.) Haw. is a synonym of *Boucerosia lasiantha* Wight. *Boucerosia truncato-coronata* Sedgewick is considered as endemic to Darwar District in Karnataka.

In this report, we surveyed the eastern part of north to southern interior areas of Karnataka, and collected specimens which are maintained at the herbarium in the Department of Botany, Kuvempu University. We collected a few interesting specimens of *Caralluma* sp. from Chitradurga District of Karnataka. The specimens were identified as *C. stalagmifera* but differed in certain floral characters. *Caralluma stalagmifera* was described by Fischer in 1925 from Vandalur near Madras (Chennai). Saldanha & Nicolson (1976) recorded it in the flora of Hassan and Seetharam et al. (2000) included it in the flora of Gulbarga in Karnataka.

Karuppusamy & Pullaiah (2007) first reported a new variety of *C. stalagmifera* var. *longipetala* from near Madurai airport in Tamil Nadu. This species has so far not been reported from Karnataka. The identity of our specimen is revealed as *C. stalagmifera* var. *longipetala* which is a new addition for the flora of Karnataka (Image 1).

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Image 1. Close-up view of *Caralluma stalagmifera* var. *longipetala*

***Caralluma stalagmifera* var. *longipetala* Karup. & Pull.**

Karuppusamy & Pullaiah (27968) SKU; Tamil Nadu, Madurai District, waste lands near airport, 28.vii.2005 (Holotype, SKU; Isotypes, MH).

**Specimen examined:** 20.ii.2010, Kuvempu University, Shankaraghatta, Shivamogga District, Karnataka, India, KUABM 1004, KUABM 1005 and KUABH 1006, (Herbarium, Department of Applied Botany (KU), Bioscience complex).

**Distribution:** India, Karnataka, Chitradurga District, Holalkere Thaluk, Ramagiri hobli, Hosabeelu (13°51'25"N & 76°07'45"E) and Muddapura Village (13°53'11"N & 76°06'32"E) region (Fig. 1). *Caralluma stalagmifera* var. *longipetala* is found on steep rock-faces on the lower parts of hilly areas near Ramagiri, a small town, where it is rare in distribution.

*Caralluma stalagmifera* var. *longipetala* occur along with other plant species like, *Euphorbia antiquorum*, *Ceropegia* sp., *Opuntia* sp., *Canthium parviflorum*, *Dodonea viscosa*, *Lantana camara* and *Barleria buxifolia*, etc.

**Plant Description:** Plants growing up to 25–40 cm tall, in dense clumps, with clear exudates; stems succulent, acute, quadrangular, 1–2 cm wide, greyish-green with brown mottling and whitish ribs. Leaves tooth-like, acute, sessile 4–5 x 0.5–1 mm, fleshy,

glabrous (Fig. 2). Flowers axillary, solitary; bracts large, triangular; pedicels up to 15mm long and 1mm in diameter, slender, glabrous; calyx five-lobed, divided up to base; corolla deeply divided, rotate, ca 12mm long, 8mm across; lobes ovate-lanceolate, dark purple with purplish yellow tips, after 8–12 days flower colour changes to brownish-green, basal parts of some flowers light pale yellowish with dark markings at the petal; spindle shaped hairs present along the margins and apex (Image 1); corona staminal, biseriate; outer lobes 2, erect, linear-lanceolate; pollinia 5, pollen masses solitary in each anther cell, pollinaria-D-shaped, yellow, waxy, attached by dark brown caudicles; gynostegium ca 2.5mm long. Follicles paired, terete, purplish streaked, 10–13 x 0.5–1 cm, tapering towards apex; old dehisced follicles glabrous (Image 2).

**Flowering and fruiting:** December - June

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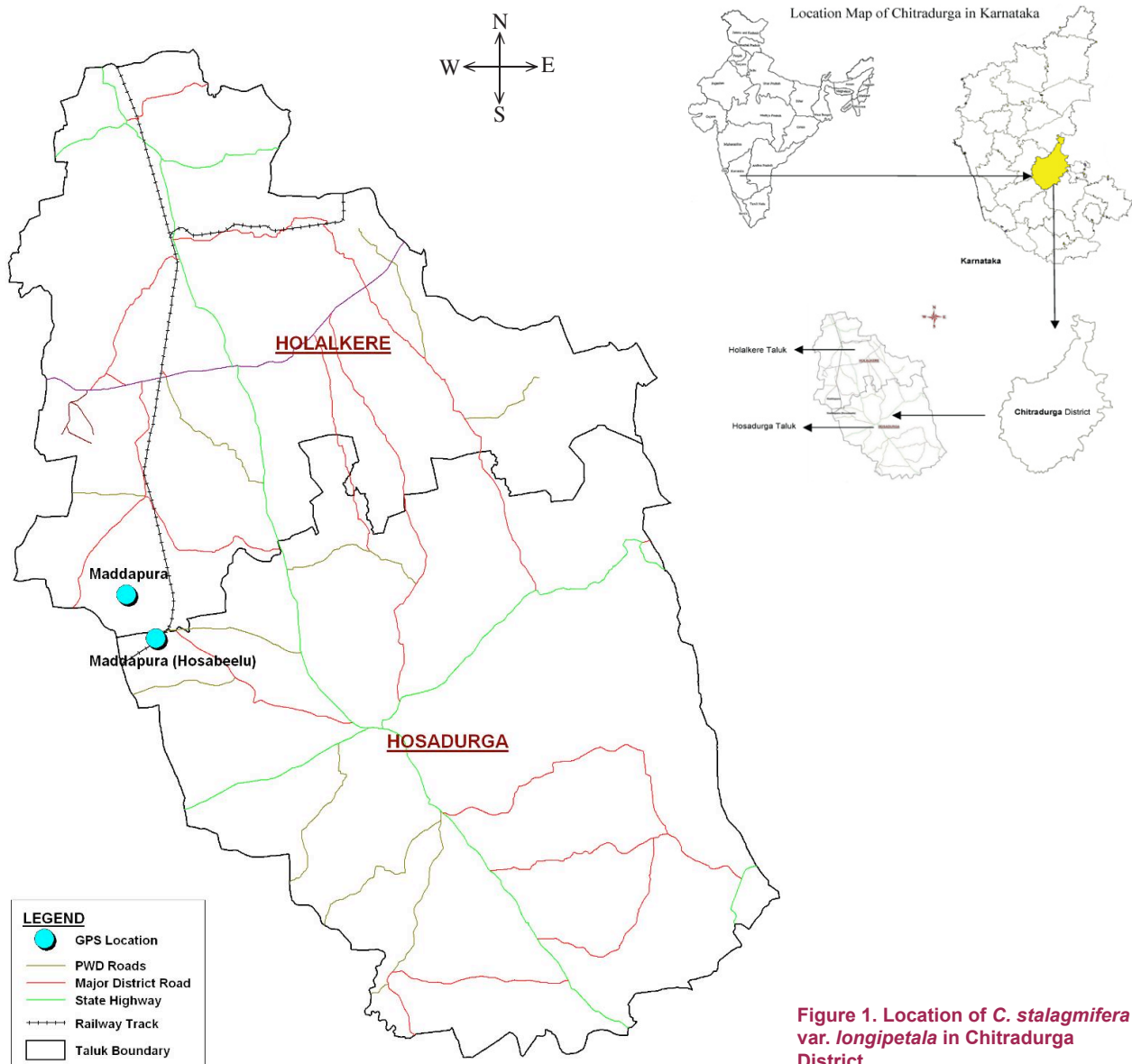


Figure 1. Location of *C. stalgmifera* var. *longipetala* in Chitradurga District.

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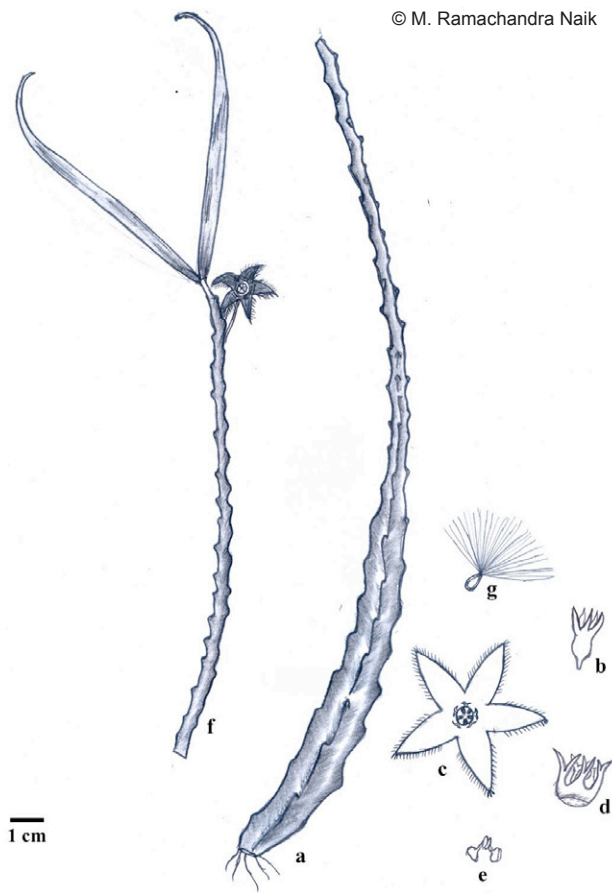


Figure 2. *Caralluma stalagmifera* var. *longipetala* Karupp. & Pull.  
a - habitat; b - calyx; c - corolla; d - corona; e - pollinia;  
f - fruiting twig; g - seed



Image 3. Herbarium of *Caralluma stalagmifera* var. *longipetala*



Image 2. Seed dispersal of *Caralluma stalagmifera* var. *longipetala*

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