

**CARALLUMA BICOLOR RAMACH. ET AL.,  
(APOCYNACEAE: ASCLEPIADOIDEAE) - A RARE  
AND LITTLE KNOWN ENDEMIC PLANT AS A NEW  
RECORD FROM PALAKKAD DISTRICT, KERALA  
STATE, INDIA**

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The name *Caralluma* R. Br. is derived from ‘Car-al-lum’, the vernacular name of the Telingas for the type species *C. adscendens* (Roxb.) Haw. originally described as *Stapelia adscendens* Roxb. (Roxburgh 1795; Meve & Liede 2002). While Ramachandran (1992) mention “Karalluma”, Gravely & Mayuranathan (1931: 5–6), mention many other vernacular names.

The genus ranges from the Mediterranean, Macaronesia to Somalia, northeastern Tanzania to Burma. It belongs to the subtribe Stapeliinae G. Don. of the tribe Ceropegieae Decne ex Orb. of the subfamily Asclepiadoideae R. Br. ex Burnett (Endress & Bruyns

2000; Meve & Liede 2004; Bruyns et al. 2010). This subfamily has traditionally been treated as the family Asclepiadaceae, but molecular evidence has demonstrated that the group, monophyletic though it is, is included in the Apocynaceae Juss. (Angiosperm Phylogeny Group 2009).

*Caralluma bicolor* V.S. Ramach., S. Joseph, H.A. John & Sofiya in Nordic J. Bot. 29: 447-450. 2011.

Holotype: CAL, isotypes: MH 1501, 13.viii.2009, ca. 450m, Bharathiar University Campus, Coimbatore, Tamil Nadu, India, Siljo Joseph.

Local Name: ‘Bokkal’ (Malayalam)

Plants up to 60–80 cm tall, stems fleshy, growing in dense clumps, branchlets unbranched, ascending, quadrangular, acute; internodes 1.5–3.5 cm long and glabrous. Racemes subterminal, 15–20 cm long; flowers pentamerous, 7–12, distant, solitary or paired; pedicel up to 1.5cm long. Bracts and bracteoles minute. Calyx lobes 1.4x1 cm, ovate, apex acuminate. Corolla glabrous, 1.8–2.5 cm long, greenish yellow with reddish brown striations; tube up to 0.2cm long, lobes rotate, lanceolate-oblong, 7x2.5 mm, apex cuspidate. Corona biseriate; the outer linear, 0.8–1cm long, lobes slightly curved with small projections between the lobes; the inner corona basally united with the outer corona, slightly keeled near the base, 7–9 mm long, reddish brown with small projections between the lobes. Anthers 0.5mm long, yellowish, basally united with inner surface of the



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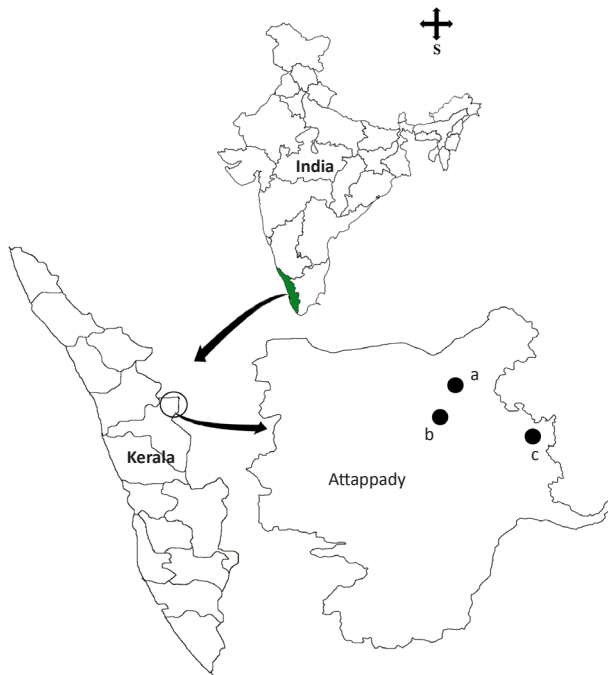
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**Figure 1.** Distribution of *Caralluma bicolor* in Attappady Hills  
 a - Ranganathapuram; b - Cheerakadavu; c - Mattathukadu

middle corona. Pollen masses ca. 1mm long, solitary in each anther cell, yellow round, waxy attached by the reddish brown caudicle. Gynostegium 1mm long. Follicle cylindrical with tapering ends, green with black stripes, 8–12 cm long; seeds oblong-obovoid, 5x2 mm; coma silky-white.

**Specimens examined:** 3918, 08.x.2009, ca. 900m, Cheerakadavu Eastern Attappady Hills, Palakkad District, Kerala, P.S. Udayan & K.A. Anilkumar; 2005, 11.viii.2007, ca. 850m, Ranganathapuram, Eastern Attappady Hills, Palakkad District, Kerala, (Fl & Fr). P.S. Udayan & K.A. Anilkumar, CALI, CMPR, and MH (Images 1 & 2; Fig. 1).

**Distribution:** Endemic to the eastern slopes of the Western Ghats of the Coimbatore District of Tamil Nadu. In the Attappady area the distribution of *Caralluma bicolor* is restricted to Mattathukadu (recorded), Ranganathapuram and Cheerakadavu localities (with flowers and fruits) where only 20 individuals were noted (Image 2).

**Habitat:** Rocky crevices in scrub jungles.

**Flowering & Fruiting:** August–December.

**Status:** The conservation status of *C. bicolor* was not mentioned by Ramachandran et al. (2011). The species is endemic to Tamil Nadu in a small number of populations. Our study confirmed that the distribution is restricted and the plants are very rare. Detailed field studies will help to understand the threat status.

**Uses:** The whole plant is used as a vegetable by the



**Image 1.** *Caralluma bicolor* Ramachandran et al.  
 A - flowering twig; B - close up of flower; C - follicle

tribals of Attappady. The dried parts of *C. acutangula* (Decne.) N.E. Br. and *C. retrospiciens* Ehrenb. ex N.E. Br. are used as a dish in the drier parts of western and eastern Africa, Egypt and Saudi Arabia (Sanogo 2010).

**Notes:** *Caralluma bicolor* is similar to *C. adscendens* (Roxb.) Haw. and *C. sarkariae* Lavranos & R. Frandsen, but differs in its larger size, unbranched branchlets, sagittate leaves, glabrous petals and large seeds. This species was so far known only from the scrub forests of the eastern slopes of the Western Ghats of Coimbatore District, Tamil Nadu (Ramachandran et al. (2011). The present collection from Ranganathapuram and Cheerakadavu forests of Eastern Attappady Hills, Palakkad District extending its distribution further towards western slopes of Western Ghats and form a new record for Kerala.

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Image 2. Herbarium sheet of *Caralluma bicolor*

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