

**BRACHYSTEMMA NALLAMALAYANA SP.  
NOV. (APOCYNACEAE: ASCLEPIADOIDEAE:  
CEROPEGIEAE) FROM INDIA**

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The genus *Brachystelma* R. Br. (Apocynaceae, Asclepiadoideae, Ceropogonaceae) has about 120 species widely distributed in South Africa, South-east Asia and Australasia (Meve 2002). In India it is represented by 18 species (Karthikeyan et al. 2009; Rao et al. 2011). During floristic explorations in the Nallamalai Hill ranges of Andhra Pradesh, the authors have collected curious specimens of *Brachystelma*, which after critical examination were found to be novel. A perusal of the literature revealed that these specimens are allied to *Brachystelma maculatum* Hook.f.

**Materials and Methods:** The material for the present study is based on recent collections by the authors from Bheemunikolanu area, from near Srisailam in the Nallamalai Hill ranges of Andhra Pradesh. The specimens used in this study are deposited at SKU (Sri Krishnadevaraya University, Andhra Pradesh).

***Brachystelma nallamalayana*  
sp. nov.  
(Fig. 1 & Images 1 & 2)**

Material examined: Holotype: SKU 34667, Isotypes BSID, 31.vii.2010, 16°02'N & 98°55'E, elevation 560m, Bheemunikolanu Hills (Nallamalais, Eastern Ghats), Andhra Pradesh, India, Coll. Rao & Prasad.

**Diagnosis:** *Brachystelma nallamalayana* sp. nov. is distinguishable from *Brachystelma maculatum* by the following characters: longer stems, peduncled cymes, basally united calyx lobes and biseriate corona.

**Description:** Erect herbs, up to 80cm high. Roots tuberous, in varied shapes, generally fusiform, to 6x3 cm diam., brownish. Stem solitary, terete, 1–2 mm in diam., unbranched, ridged, succulent, glabrous, glaucous green; internodes up to 10cm long. Leaves simple, opposite, decussate, fleshy, sessile; lamina linear, up to 19cm long and ca. 2mm diam., acute at apex, undulate along margins, glabrous, sometimes hairy on the mid vein. Inflorescence crowded at apical nodes, lateral, shortly peduncled, umbellate, 5–6 flowered, pendulous; pedicels terete, filiform, up to 1.3cm long, glabrous. Bracts and bracteoles persistent, linear, acute at apex, glabrous, greenish-pink; bracts 2x0.5 mm; bracteoles 1x0.2 mm. Calyx 5-lobed, united at base; lobes linear, 3x0.5 mm, acute at apex, 3–5 veined, glabrous, pinkish-green. Corolla 5-lobed; corolla tube up to 1mm long, shallow; corolla lobes erect, linear, 5–9x2 mm diam., acute but appears obtuse due to inturned apex, faintly 5-veined, margins involute with 1–2 mm long pink hairs



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**Competing Interest:** Authors declare no competing interests.

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**Image 1.** *Brachystelma nallamalayana* sp. nov.  
**A - habitat; B - tubers; C - leaves; D - inflorescence; E & F - flowers.**

throughout, more dense at apex; lobes basally pale white with black spots and yellow above without any blotches. Corona ca. 3mm across, biseriate, glabrous; interstaminal corona obscurely 5-angled, cupular, forms a continuous ring around the gynostegium, brown; staminal corona 5-lobed, black; lobes appressed to

the back of the anthers, exceeding and hooded on the style apex. Pollinia waxy, yellow, globose, ca. 200µm long, margins pellucid at apex, attached by light brown tubular caudicles to a red-coloured corpuscle. Style apex pentangular. Follicles not seen.

Flowering: July–August.

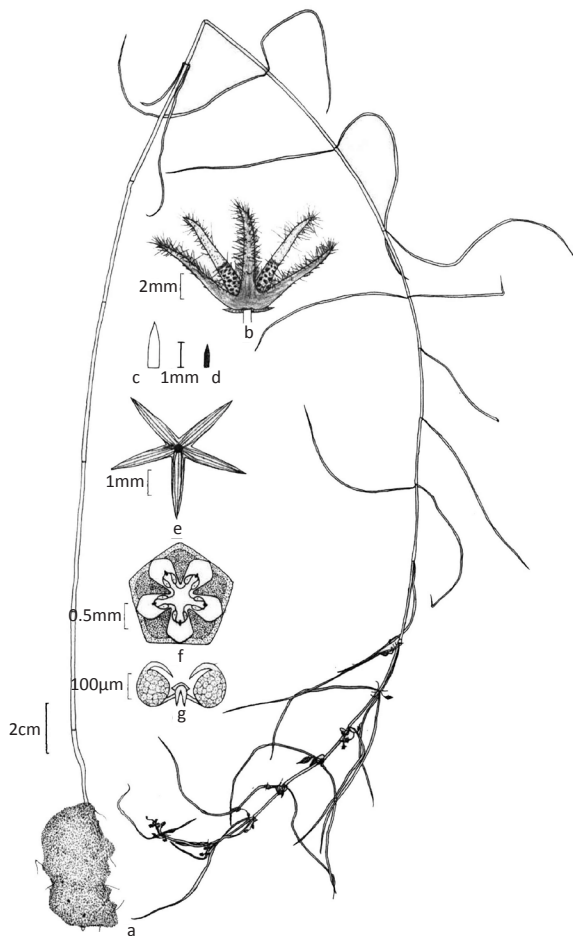


Figure 1. *Brachystelma nallamalayana* sp. nov. a - habit; b - flower; c - bract; d - bracteole; e - calyx; f - corona top view; g - pollinia

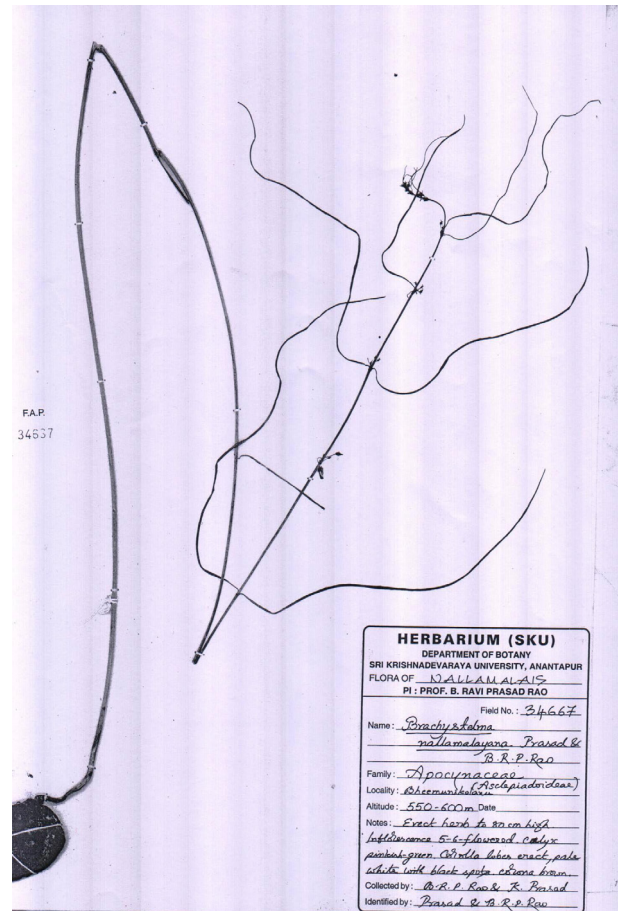


Image 2. Herbarium specimen

**Etymology:** The new species is named after the type locality, the Nallamalais of Andhra Pradesh, India.

**Habitat and Distribution:** This species occurs amidst grasses on open hill slopes of dry deciduous forests at an altitude between 550–600 m, associated with *Cymbopogon coloratus* and *Heteropogon contortus*.

**Discussion:** The new species *Brachystelma nallamalayana* is similar to *B. maculatum* but differs in having longer stems (ca. 80cm long) peduncled cymes, basally united calyx lobes and biseriate corona (vs. shorter ca. 30cm long stems, sessile cymes, basally free calyx lobes and uniseriate corona in *B. maculatum*).

**Conservation status:** The new species of *Brachystelma nallamalayana* Prasad and Ravi Prasad Rao has restricted distribution and currently is known only from type locality in an area about 10m<sup>2</sup> and represented by about 60 individuals. Until further explorations determine

its distribution range, biology and threats, the species cannot be assessed. While the available information perhaps qualifies it initially as a Critically Endangered species, it is at present Data Deficient..

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