

***Strobilanthes lakshminarasimhanii* (Acanthaceae): A new species from Kodagu, Karnataka**

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स्ट्रोबिलेन्थस लक्ष्मीनारासिम्हनाई (एकेन्थेसी) – कोडागू, कर्नाटक से एक नवीन जाति

समीर पाटिल

सारांश

पश्चिमी घाट के शोला वन क्षेत्र पुष्पागिरी वन्य जीव अभयारण्य से *स्ट्रोबिलेन्थस लक्ष्मीनारासिम्हनाई* जाति को छायाचित्रित कर वर्णित किया गया है। इस नवीन जाति का इसकी संबद्ध जाति *एस. पुल्नेयेन्सिस* के साथ इसका तुलनात्मक वर्णन भी किया गया है।

ABSTRACT

Strobilanthes lakshminarasimhanii, a new species from the shola forests of Pushpagiri Wildlife Sanctuary in Western Ghats is described here, along with a illustration and photo plate. The new species is also compared with its allied species *S. pulneyensis*.

Keywords: Coorg, endemic, India, Karnataka, new species, *Strobilanthes*, Western Ghats

Introduction

Strobilanthes Blume with c. 431 species is mainly distributed in tropical Asia (POWO, 2020). In India, the genus is represented by c. 150 species (Karthikeyan & al., 2009) of which 69 are endemic (Singh & al., 2015). Venu (2006) reported 59 species from Peninsular India. In the last five years, 10 new species of *Strobilanthes* were discovered from southern India (Sasidharan & al. 2016, Josekutty & al. 2016, Biju & al. 2017, Mathew & al. 2017, Augustine & al. 2017, Thomas & al. 2019a, 2019b, 2019c, 2020) taking the count to 70 species in Peninsular India. The Pushpagiri Wildlife Sanctuary in Kodagu district, Karnataka, harbors a diversity of 20 species of *Strobilanthes* within a small area of 102 sq. km. (Patil, 2020). During its floristic study, an interesting specimen of *Strobilanthes* growing on the edges of shola forests was collected in the year 2017. A detail herbarium and literature survey revealed that the species is different from all of the previously known species of *Strobilanthes*. Therefore, the species is described here. It is closely

related to *S. pulneyensis* C.B. Clarke but differs in having quadrangular peduncle; suborbicular villous bracts; white, resupinate, hirsute corolla and included stamens. A table of comparison (Table 1) and illustration have also provided for easy understanding.

Taxonomic treatment

***Strobilanthes lakshminarasimhanii* Sameer Patil, sp. nov.** **Fig. 1 & 2**

Type: INDIA. Karnataka, Kodagu, Pushpagiri Wildlife Sanctuary, Mandalpatti-Hamiyalla forest path, 12°33'43.90" N, 75°42'5.46" E, 1149.7 m, 26 October 2017, Sameer Patil 207387 A (Holotype BSI; Isotype 207387 B, MH, 207387 C, BSI).

Diagnosis: *Strobilanthes lakshminarasimhanii* is closely related to *S. pulneyensis* in having compact flattened spike on long peduncle, but differs from it in having oblique leaf base on the larger leaf of the pair (vs not oblique), peduncle quadrangular, ribbed (vs terete), bracts suborbicular with dense villous margin throughout (vs

ovate-spatulate, villous at base), corolla white, resupinate, hirsute outside (vs mauve or lilac, glabrous outside and not resupinate) and stamens included (vs exerted).

Large straggling shrub, 2–3 m high; stems terete, profusely branched, swollen above nodes, puberulent, younger branches 4-ribbed, covered with dense greyish-white hairs. Leaves opposite, slightly unequal; petioles 3–6 cm long, tomentose; lamina ovate-lanceolate, 7–10 × 4–6 cm, coriaceous, base ovate, oblique in larger leaf of the pair, margins entire, hairy, apex acuminate, densely villous throughout; lateral veins 5–7 pairs, impressed above, raised beneath. Inflorescence flattened spikes or capitate heads, 2 or 3, axillary, densely hairy; peduncles 7–8 cm long, quadrangular, ribbed, hirsute; involucre bracts foliaceous, sterile, hispid; fertile bracts suborbicular, 0.8–1.8 × 1–2 cm, densely villous throughout, base rounded, margin entire, apex obtuse; bracteoles lanceolate, 0.8–1 cm, hirsute outside. Flowers resupinate. Calyx tubular, 0.8–1.2 cm long, deeply 5-lobed; lobes linear, 4–5 mm long, acute, hairy outside. Corolla campanulate, white, 2–3 cm long; tube 1.5–2.7 cm long, 5-lobed; lobes suborbicular, straight, 5–8 × 5–6 mm, apex obtuse; hairy outside, glabrous inside. Stamens 4, included, basally attached to a hairy sheath; filaments 2–4 mm long; anthers oblong, white-brown, c. 2 × 1 mm, dorsifixed.

Ovary oblong, c. 3 × 1 mm, glabrous, apex pubescent, 2-locular with 2 ovules per locule; style 1.8–2.8 cm long, slightly recurved; stigma simple. Fruits not seen.

Flowering: September–February. Flowers every year.

Habitat: On the edges of shola forests at an elevation of 1000–1500 m. It grows in close association with *Strobilanthes callosa*, *Ophiorrhiza hirsutula*, few ferns and grasses.

Distribution: The species is recorded with good population from Hamiyalla and Mandalpatti areas within Pushpagiri Wildlife Sanctuary, Kodagu, Karnataka.

Etymology: The new species is named after late Dr. P. Lakshminarasimhan, Scientist (Retd.), Botanical Survey of India, for his immense contribution to the field of angiosperm taxonomy.

Conservation status: This species is currently known only from two localities of Pushpagiri Wildlife Sanctuary with 30–40 mature individuals found at each site. Based on preliminary surveys this species has been provisionally assessed here as critically endangered in its current range of distribution. However, further surveys in the adjacent regions are necessary to categorize the conservation status of the species.

Table 1. Character comparison of *Strobilanthes lakshminarasimhanii* with *S. pulneyensis*

Characters	<i>S. lakshminarasimhanii</i>	<i>S. pulneyensis</i>
Young branches	Quadrangular, ribbed, dense grayish-white hairy	Terete, hispid
Leaf margin	Entire, dense hairy	Serrate, scabrid
Leaf base	Oblique in the larger leaf of the pair	Not oblique
Peduncle	Quadrangular, ribbed, hirsute	Terete, minutely hispid
Fertile bracts	Suborbicular, dense villous throughout, margin entire	Ovate-spatulate, white-silky villous at base, margin crenate
Flowers	White, resupinate, hirsute outside	Liliac or mauve, not resupinate, glabrous outside
Corolla lobes	Spreading	Recurved outside
Stamens	Included, filaments shorter than style	Excluded, filaments equalling or longer than style

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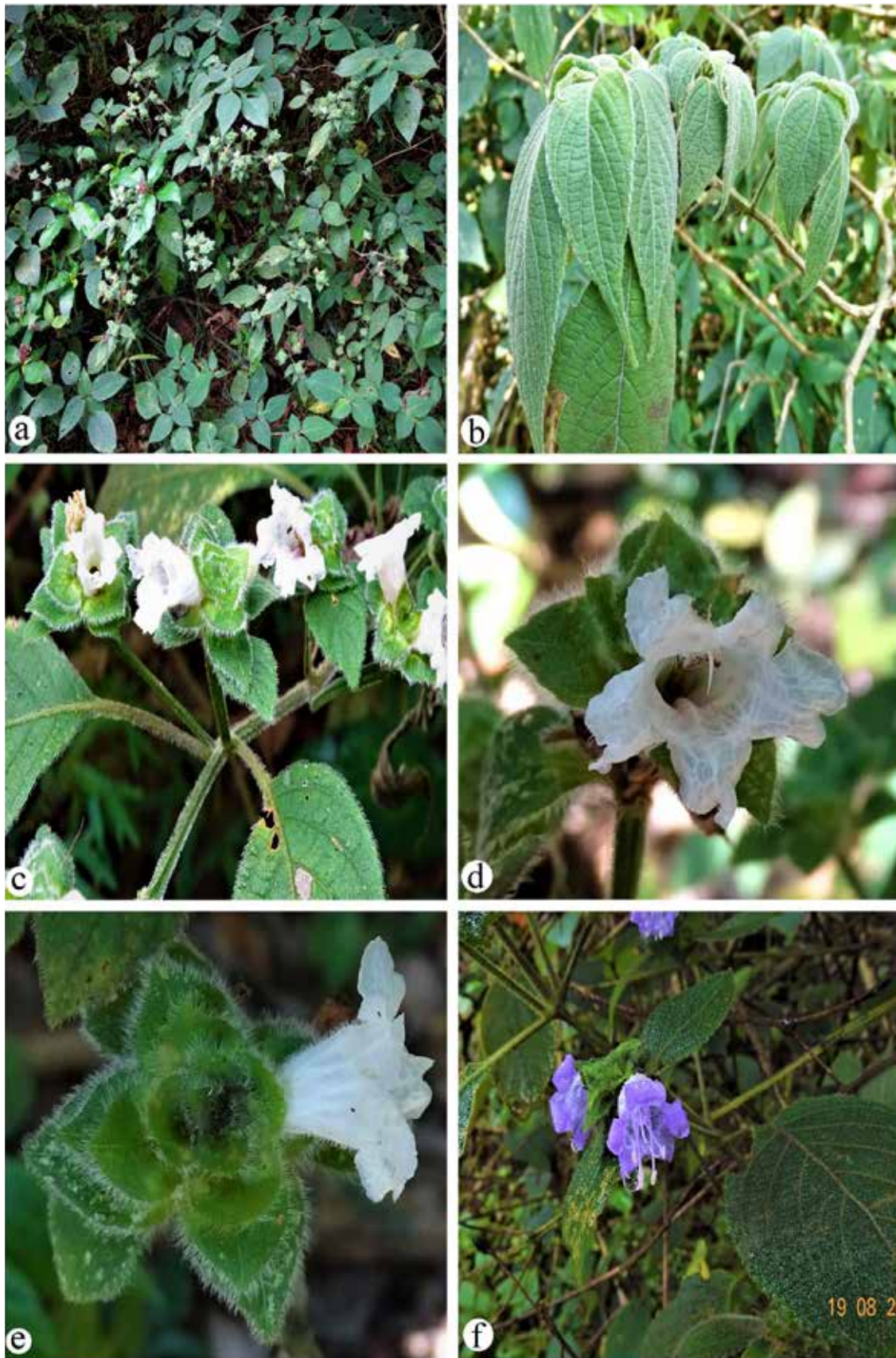


Figure 2. *Strobilanthes lakshminarasimhanii* sp. nov. A. Habitat; B. Leaves; C. Inflorescence showing quadrangular peduncle; D. Resupinate corolla with included stamens; E. Close-up of capitulate spike showing densely villous bracts and corolla; F. Flowering-twig of *Strobilanthes pulneyensis*.



Figure 1. *Strobilanthes lakshminarasimhanii* sp. nov. A. Habit; B. Bract; C. Bracteole; D. Calyx; E. Corolla split open showing stamens; F. Pistil.

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