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New distributional record of a narrow endemic orchid *Cleisostomopsis salimii* (J.Mathew, Hrideek, V.B. Sreek. & K.Madhus.) A.N.Rao from Western Ghats of Karnataka, India

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ABSTRACT

Cleisostomopsis salimii (J.Mathew, Hrideek, V.B.Sreek. & K.Madhus.) A.N.Rao is reported here as the new distributional record for the state of Karnataka from Chikkamagaluru district. Relevant information including detailed description and illustration are provided for easy identification of the species.

Keywords: Western Ghats, Mullayanagiri, Orchidaceae

1. INTRODUCTION

Orchidaceae is one of the largest families of flowering plants with over 28000 species (Chase et al., 2015) and contributes 7% of the total species and 40% of the species of monocots. Recent compilation on species of the family orchidaceae in India accounts for 1268 taxa including 29 intraspecific belonging to 155 genera (Singh et al., 2019) of which 197 taxa including one variety is found to occur in Karnataka (Sanjappa and Sringeswara, 2019) and the list continuous to grow with new additions to the state every year (Vishwanath et al., 2021; Dhatchanamoorthy et al., 2022; Shreyas and Kotresha, 2022; Shreyas and Kotresha, 2022; Makanur and Kotresha, 2022).

2. MATERIALS AND METHODS

During the recent survey on orchids of Karnataka we collected an interesting specimen of the genus *Cleisostomopsis Seidenf* from Mullayanagiri, Chikkamagaluru district, Karnataka. A critical study of the specimen collected, lead to the identification of the species as *Cleisostomopsis salimii* (J.Mathew,

Hrideek, V.B. Sreek. & K.Madhus.) A.N.Rao. Review on the relevant literature indicates that this species has not been reported from the state of Karnataka (Singh et al., 2019; Sanjappa and Sringeswara, 2019; Diwakar, 2019; Schuiteman et al., 2022) and hence we are reporting this as new distributional record for the state of Karnataka with detailed information on nomenclature, description, phenology, specimen examined, illustrations and other relevant notes on the species for easy identification in the field.

3. TAXONOMIC TREATMENT

Cleisostomopsis salimii (J.Mathew, Hrideek, V.B.Sreek. & K.Madhus.) A.N.Rao, Pleione 14 (2):349. 2020. *Seidenfadeniella salimii* J.Mathew, Hrideek, V.B.Sreek. & K.Madhus., Webbia 71:69. 2016. TYPE: India, Kerala, Wayanad district, Aranamala, 1450 m, 11°29'30" N, 076°06'11" E, 24 December 2011, *PM Salim 0404* (holo, MSSRF; iso, SESH).

Figure 1 *Cleisostomopsis salimii* (J.Mathew, Hrideek, V.B.Sreek. & K.Madhus.) A.N.Rao. A. Whole plant; B. Flower (front & side view); C. Dissected floral parts showing sepals, petals & lip; D. Column (with & without anther); E. Anther cap; F. Pollinia (side & front view)

Description

Epiphytic herbs; stem, slender, ascending. Leaves terete, 7–12 cm long, green, mottled with blackish-purple spots, acute with a ventral groove. Inflorescence, simple raceme, many-flowered, 5–7 cm long. Flowers 3 x 8 mm, light pink; ovary with pedicel 6.5 mm long, sepals and petals light pink; dorsal sepal 3–3.5 × 2 mm, oblong, erect, apex acute; lateral sepals 2.8–3 x 1 mm, obliquely sub-spatulate; petals 2.3 x 1.8–2 mm, orbicular, midvein purplish green; lip 3-lobed, spurred, spur 9–11 mm long, cylindrical, clavate, apex slightly incurved, lateral lobes of the lip erect, mid-lobe 1.8–2 x 1.5–1.7 mm, ovate, deflexed, subacute. Column 4.5 mm long, rostellar arms 2, curved, foot absent. Another 2-loculed, 0.9 x 0.9 mm; pollinia 2, oblong, dark pink, 0.2 x 0.3 mm; stipe short, 0.1 mm, linear; viscidium oblong, 0.6 x 0.2 mm.

Phenology

Flowering; February–March

Distribution

Karnataka (Chikkamagaluru-Mullayanagiri, present record), Kerala (Idukki, Kollam, Wayanad).

Habitat

Epiphyte on *Wendlandia thyrsoidea* (Roth) Steud in hill slopes

Specimen examined

India, Mullainagiri, Chikkamagaluru district, Karnataka, 19.02.2021, *Sahana, A.N.Sringeswara & Manjunath* S136 (UASB!)

Note

Cleisostomopsis Seidenf. is the recently described new genus by Seidenfaden, (1992) to accommodate the species *Saccolabium eberhardtii* Finet, which is unique in many characters from that typical genus *Saccolabium* Blume. Kumar and Manilal, (1994) described another new epiphytic orchid genus with terete leaves and ascending racemes as *Seidenfadeniella.* Kumar and Manilal, (1994) to accommodate *Sarcanthus roseus* Wight and *Saccolabium chrysantha* Alston. *Seidenfadeniella* is closely resemble to *Cleisostomopsis* but differs with more or less cleft or split (not completely) pollinia and simple thickening of the back wall of spur from that of the former with completely divided pollinia of semi-globular free halves and the back wall spur with Y-shaped callus. Due to its close resemblance, Rice, (2019) transferred both *Sarcanthus roseus* Wight and *Saccolabium filiforme* Rchb.f. (*Saccolabium chrysantha* Alston which is a synonym) to *Cleisostomopsis* Seidenf. Since, Rice, (2019) synonymised *Seidenfadeniella* under *Cleisostomopsis*, the newly described species *Seidenfadeniella salimii* J.Mathew, Hrideek, V.B.Sreek. & K.Madhus. was transferred to *Cleisostomopsis* Seidenf. by Rao, (2020). Currently five species are recognised under the genus *Cleisostomopsis* Seidenf. of which three are found to occur in India viz., *Cleisostomopsis filiformis* (Rchb.f.) R.Rice, *Cleisostomopsis roseus* (Wight) R.Rice and *Cleisostomopsis salimii* (J.Mathew, Hrideek, V.B.Sreek. & K.Madhus.) A.N.Rao.

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Authors' contributions

BM located the plant in their natural habitat; SS collected the specimen for herbarium preparation & conceptualised the manuscript; SV & ANS prepared the herbarium specimen and prepared the manuscript; ANS prepared the photographic illustration.

Informed consent

Not applicable.

Ethical approval

Cleisostomopsis salimii (J.Mathew, Hrideek, V.B.Sreek. & K.Madhus.) A.N.Rao is reported from state of Karnataka, India. The ethical guidelines for plants & plant materials are followed in the study for sample collection & identification.

Conflicts of interests

The authors declare that there are no conflicts of interests.

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Data and materials availability

All data associated with this study are present in the paper.

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