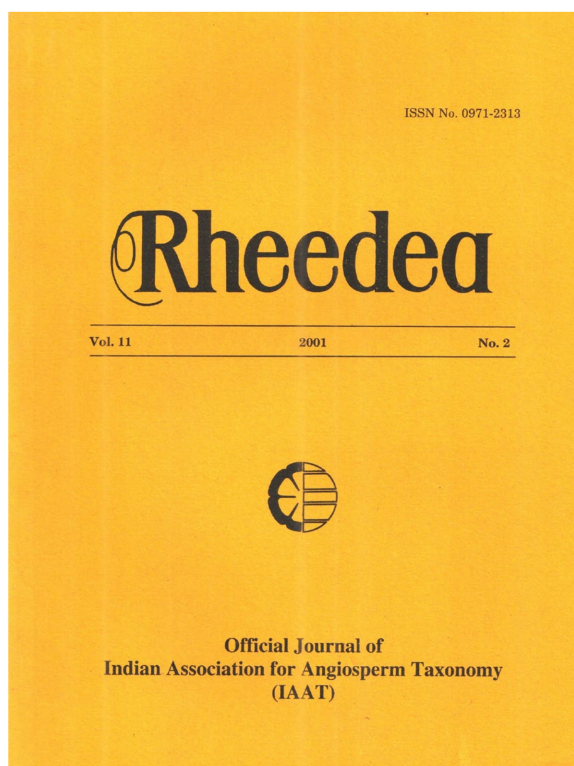




A new species of *Bulbophyllum* Du Petit-Thou. (Orchidaceae) from Kerala, India

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A new species of *Bulbophyllum* Du Petit-Thou. (Orchidaceae) from Kerala, India

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Abstract

Bulbophyllum rosemarianum Sathish, Suresh & Saleem, a new species of orchid belonging to *Bulbophyllum* sect. *Careyana* Pfitz. is described and illustrated from Kerala, India. Affinities of the novelty with the related *B. rufilabrum* Par. ex Hook. f., *B. tridentatum* Krzl. and *B. lilacinum* Ridl. are highlighted.

INTRODUCTION

Bulbophyllum Du Petit-Thou. is a pantropical genus of about 900 species (Garay *et al.*, 1994) of epiphytic or lithophytic orchids, represented in India by 86 species (Sathish Kumar, 2001). 17 species are known to occur in the Western Ghats including the 12 endemics (Sathish Kumar, 1999). To this we add the following novelty, which belongs to the section *Careyana* Pfitzer of *Bulbophyllum* and closely related to *B. rufilabrum* Par. ex Hook. f. of Burma and Thailand.

***Bulbophyllum rosemarianum* Sathish, Suresh *et* Saleem, *sp. nov.* (Fig. 1).**

Planta epiphyta, *B. rufilabri* valde affinis, sed ab eo foliis erectis, multo angustioribus, non geotropics, basi sepali postici truncato angulata, apice acuto, petalis plus quam obliquis, falcato aristatis et labello flavescenti, fusco-papilloso ample distincta.

Types: India, Kerala, Idukki District : Thalakode, 30 m, 2 Feb. 1998, *Saleem 28211* (*Holo* – TBGT). Kannur District: Nellippara, 50 m, 11 Feb. 1997, *Sibi Mathew & Suresh Kumar 27297* (*Para* – CAL, TBGT).

Epiphytic pseudobulbous herbs with creeping rhizomes. Pseudobulbs 1.7-3.5 x 1.1-1.6 cm, quadrangular, pale yellowish green, arranged distantly on a thick and wiry rhizome, rooted below and 1-leaved. Leaves 5-18 x 1.6-3.2 cm, erect, oblong, thick and fleshy, deeply channelled in the middle region, narrowed at base into a short petiole, obtuse at apex. Inflorescence arises from base of pseudobulb, pale green, longer than leaf with 5.5-9.2 cm long

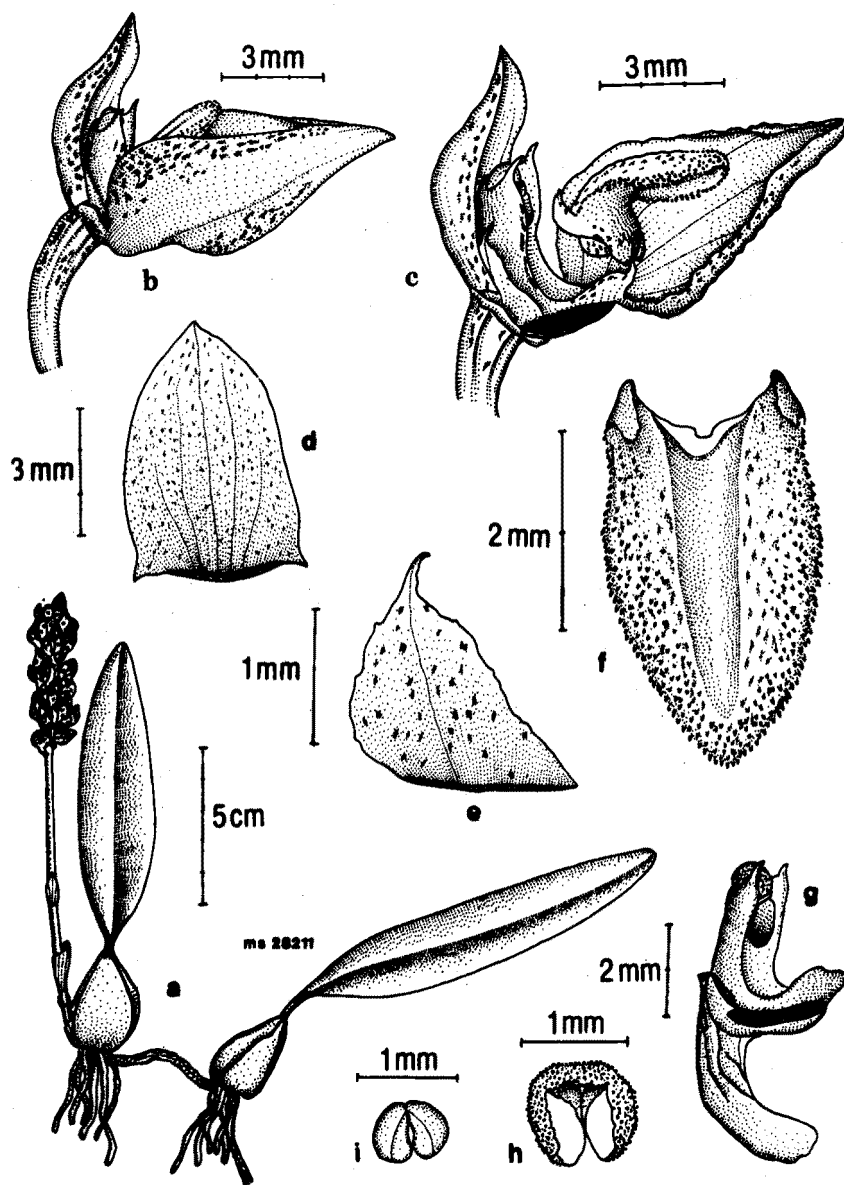
C. Sathish Kumar *et al.*

Fig. 1. *Bulbophyllum rosemarianum* Sathish, Suresh *et* Saleem: a. Habit; b. Single flower; c. Flower – one lateral sepal removed; d. Dorsal sepal; e. Petal; f. Lip, g. Column & column-foot; h. Operculum; i. Pollinia (after Saleem 28211 – holotype; drawn by P.C. Suresh Kumar).

A new species of *Bulbophyllum* from Kerala, India

scape bearing 4 cup-like sterile bracts and a short raceme (4-5 cm) of pale yellow flowers smelling like a ripened jack fruit or mango. Dorsal sepal 4-5 x 3-3.5 mm, ovate-elliptic, truncate-angulate, 5-veined, acute at apex, joined only at the central part at base leaving side-margins free (Fig. 1d). Lateral sepals 8-9 x 4-4.5 mm, ovate-elliptic or boat-shaped, 5-veined, margins folded inwards, lower edges slightly connate near base, attached to column-foot at sides, acute at apex. Petals 2-2.5 x 1.5-2 mm, broad-based, ovate-aristate, slightly oblique and erose at margins, gland-dotted and 1-veined. Lip 3-3.5 x 1.5-2 mm, thick, yellow with brown markings, papillose throughout except the median furrow region, 3-lobed; side lobes represented by 2 auricles, ovate-oblong, attached to tip of column by a short ligament. Column 2-3 mm long, thick with 2 erect sharply pointed stamens that rise above operculum. Column-foot about 2 mm long bearing lateral sepals on sides and lip a little below the apex. Operculum 1 x 1 mm, 2-celled, slightly rugose outside. Pollinia 4 in 2 groups, each one unequally divided. Fruits 2-2.5 x 0.7-1.2 cm, globose.

The new species belongs to the sect. *Careyana* Pfitz. and related to *B. rufilabrum* Par. ex Hook. f. but different in having erect non geotropic leaves, truncate-angulate, acute dorsal sepal, broad-based, oblique falcate-aristate petal and yellow lip with brown papilla throughout except the median furrow.

Flowering and fruiting: January – March.

Ecology: Found on trees in the riverine vegetation and lowland forests. At Thalakode in Idukki district, it grows on the main trunk of a mango tree (*Mangifera indica*). Subsequently, it was found growing along with *Pothos scandens* L., *Lycopodium squarrosum*, etc. on *Artocarpus hirsuta* and *Lagerstroemia flos-reginae* near a rubber plantation.

Etymology: *Bulbophyllum rosemarianum* commemorates our good friend and an accomplished photographer, the late Rosemary Lee of Coombland, England with whom the senior author contemplated a joint work on the "Flowers of the Elephant Peak", not far from the area where the holotype was collected. Rosemary Lee lived in India with her family for nearly 20 years since 1957 and was witness to the changes that took place in and around Munnar, Kerala. We first met her during the last gregarious flowering of Nilgiri Strobilanthes (*Strobilanthes kunthiana*) in 1994 when she expressed her desire to do a joint work on the flowers of the Anamudi, the highest peak (2695 m) south of the Himalayas. After we made steady progress with our preliminary work of literature collection, and later a final round of discussion at England in June 1995, we heard the sad news that Rosemary Lee died of cancer. *B. rosemarianum* is hence, dedicated to our good friend and it is also reminiscent of an unfulfilled project.

Notes: *Bulbophyllum rosemarianum* was first collected by one of us (M. Saleem) on 12 May 1994 from Thalakode on way to Neriampalam in sterile condition and it was introduced into the Orchidarium of the Tropical Botanic Garden and Research Institute at Palode, Thiruvananthapuram. Meanwhile, in 1997 we got the same species in flowers from Nellippara in Kannur district. A detailed study of this collection was made in comparison with other

C. Sathish Kumar *et al.*

known Indian species. The pleasant fruity smell of the flowers was quite unique and characteristic. In 1998, the first specimen, which was under cultivation since 1994, flowered proving to be the same species with the pleasant fruity smell.

Despite critical comparative study of the characters of a host of related species we could not fix the identity of our species which keyed out near *B. rufilabrum* Par. ex Hook. f. and *B. tridentatum* Krzl. Sketches of the detailed analysis and notes along with colour pictures were sent to the late Dr. Gunnar Seidenfaden, Dr. Leslie A. Garay, and Mr. Paul Ormerod, all of whom accepted the novelty of our specimen.

The closest ally of *B. rosemarianum* is evidently *B. rufilabrum* Par. ex Hook. f. of Burma and Thailand but it is a smaller plant with a much more pubescent-papillose lip. In the nature of cuspidate stelidia and channelled, verrucose papillose lip, *B. rosemarianum* approaches *B. lilacinum* Ridl. (Thailand – Peninsular Malaysia) which otherwise has white flowers, sepals with 3 lines of purplish spottings and marks, narrower petals and small flowers.

Acknowledgements

We are deeply indebted to the late Dr. Gunnar Seidenfaden, Denmark, Dr. Leslie A. Garay, USA who apart from commenting on the novelty, also provided the Latin diagnosis, and Mr. Paul Ormerod, Australia, who elaborately commented on the affinities of *B. rosemarianum*. We are also grateful to the Director, Tropical Botanic Garden and Research Institute, Thiruvananthapuram for encouragement, and the Western Ghats Cell of the Department of Planning and Economic Affairs, Govt. of Kerala for financial support under Western Ghats Development Programme.

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