



RESEARCH COMMUNICATION

Schoenorchis manilaliana M.Kumar & Sequiera (Orchidaceae): A new record for Orchidaceae of Tamil Nadu, India

C. Rajasekar¹, G. Aazhivaendhan², R. Rajendran¹, T. Senthil Kumar², & R. Kottaimuthu^{1*}

¹Department of Botany, Alagappa University, Karaikudi – 630 003, Tamil Nadu, India

²Department of Botany, Bharathidasan University, Tiruchirappalli – 620 024, Tamil Nadu, India

*Email: rkmlegumes@gmail.com



ARTICLE HISTORY

Received: 04 December 2021

Accepted: 17 February 2022

Available online

Version 1.0 : 29 March 2022



Additional information

Peer review: Publisher thanks Sectional Editor and the other anonymous reviewers for their contribution to the peer review of this work.

Reprints & permissions information is available at https://horizonepublishing.com/journals/index.php/PST/open_access_policy

Publisher's Note: Horizon e-Publishing Group remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Indexing: Plant Science Today, published by Horizon e-Publishing Group, is covered by Scopus, Web of Science, BIOSIS Previews, Clarivate Analytics, etc. See https://horizonepublishing.com/journals/index.php/PST/indexing_abstracting

Copyright: © The Author(s). This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited (<https://creativecommons.org/licenses/by/4.0/>)

CITE THIS ARTICLE

Rajasekar C, Aazhivaendhan G, Rajendran R, Kumar T S, Kottaimuthu R. *Schoenorchis manilaliana* M.Kumar & Sequiera (Orchidaceae): A new record for Orchidaceae of Tamil Nadu, India. Plant Science Today. 2022;9(sp1): 19–20. <https://doi.org/10.14719/pst.1614>

Abstract

Schoenorchis manilaliana M.Kumar & Sequiera collected during a field expedition to Megamalai Wildlife Sanctuary forms a new distributional record for the state of Tamil Nadu. The present collection is a first report from outside the type locality. A brief description, photo-plate and other details of this endemic orchid is presented here.

Keywords

Endemic, epiphyte, India, Western Ghats

Introduction

The genus *Schoenorchis* Reinw. ex Blume has about 28 species (1) in tropics and subtropics of Asia, Australia and islands of west Pacific with the highest diversity in continental Southeast Asia (2, 3). India is known to have 7 species, namely *S. fragrans* (C.S.P. Parish & Rchb.f.) Seidenf. & Smitinand, *S. gemmata* (Lindl.) J.J. Sm., *S. jerdoniana* (Wight) Garay, *S. manilaliana* M.Kumar & Sequiera, *S. minutiflora* (Ridl.) J.J. Sm., *S. nivea* (Lindl.) Schltr. and *S. smeeana* (Rchb.f.) Jalal, Jayanthi & Schuit. (4). Of these, presently 3 species are reported from Tamil Nadu (5, 6).

During a recent field visit to Megamalai, Theni District, Southern Western Ghats, the authors collected few interesting epiphytic orchid specimens from the edges of evergreen forests. Critical studies with pertinent literature (7) revealed that they represent as *S. manilaliana* M.Kumar & Sequiera, an endemic orchid of Kerala, hitherto unknown from Tamil Nadu. Furthermore, the present collection is the first report of the species from outside the type locality and an addition to the Orchidaceae of Tamil Nadu. Hence, it is discussed here under with relevant details for its easy identification.

Taxonomic treatment

Schoenorchis manilaliana M.Kumar & Sequiera in Kew Bull. 55(1): 241. 2000. (Fig. 1).

Epiphytic herbs; stems 5–6.8 cm long, curved upwards, base with remains of old petiolar sheaths. Leaves simple, alternate, linear or linear-lanceolate, 2–3.8 × 0.1–0.4 cm, twisted, succulent, emarginated at apex. Racemes 5–6.5 cm long, leaf-opposed, 15–26-flowered; peduncle up to 2.5 cm long, sterile bracts 3–4, minute. Bracts ovate or triangular-ovate, up to 2 mm long, 1-nerved, margin scarious, folded inwards, acuminate at apex. Flowers white, ca 2 mm across. Dorsal sepal 1.6–2 × 0.5–0.8 mm, elliptic to oblong, obtuse, 1-nerved; lateral sepals ca 20 × 8 mm, obovate, faintly twisted,

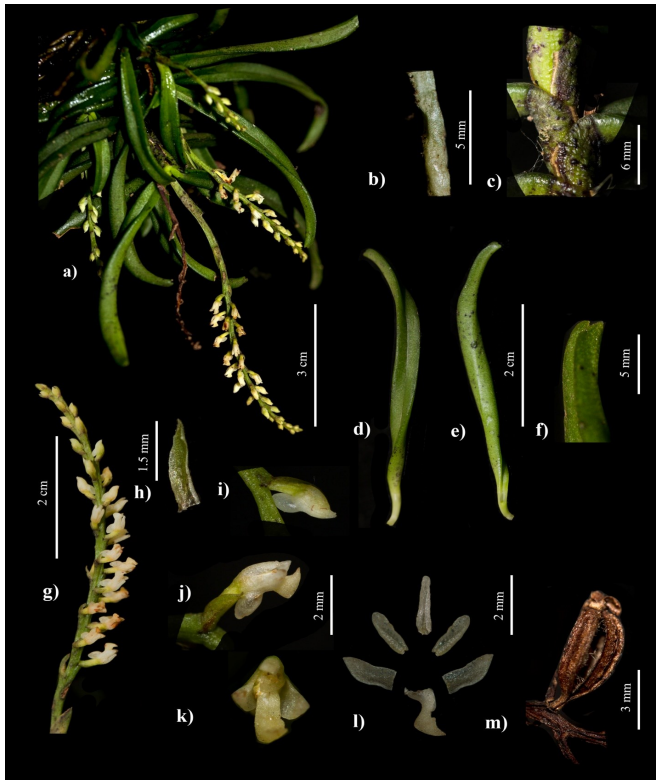


Fig. 1. *Schoenorchis manilaliana*. a- habit; b- root; c- node; d-f leaves; g- inflorescence; h- bract; i- flower bud; j- flower side view; k- flower front view; l- sepals and petals; m- fruit.

keeled near the apex, 1-nerved. Petals white, ca 18×5 mm, oblong or obovate, twisted, 1-nerved; lip white, fiddle-shaped, up to 2.5 mm long, fleshy; lateral lobes ca 1 mm long, induplicate; midlobe ca 1 mm long, globose; anther yellowish, terminal; operculum 0.2–0.3 mm long, curved apically; pollinia unequal, stipe boat shaped; ovary inferior, pedicel 2–2.5 cm long, ovules attached with parietal placenta. Capsules obovoid, ca 3 mm long; seeds microscopic, numerous, dusty.

Distribution

INDIA: (Kerala & Tamil Nadu [present report]). Endemic.

Specimens examined

India. Tamil Nadu, Megamalai, $9^{\circ} 41' 53''$ N; $77^{\circ} 24' 03''$ E, 1421 m, 30 August 2021, C.Rajasekar & R.Rajendran 300 (Alagappa University Herbarium).

Ecology

It is very rarely seen at the edges of evergreen forests at an altitudinal range between 1200–1450 m.

Note

According to Kumar and Sequiera (7), *S. manilaliana* closely resembles *S. nivea*, but easily distinguishable by its leaves twisted with acute apex (vs. leaves not twisted with notched apex in *S. nivea*), racemes simple, up to 7 cm long (vs. racemes in much branched panicles, 7–11 cm long in *S. nivea*) and bracts smooth (vs. bracts papillate in *S. nivea*).

Acknowledgements

The author (TSK) acknowledges the DST-SERB, Govt. of India for providing financial assistance through Project (Sanction Number CRG/2019/000367). Authors are grateful to the Tamil Nadu Forest Department for granting permission to carry out this research. We also grateful to Dr. Pankaj Kumar, Kadoorie Farm and Botanic Garden, Hong Kong for help in identification.

Authors contributions

CR, GA and RR carried out the field survey and herbarium preparation. RK and CR identified and authenticated the collection. All authors read and approved the final manuscript.

Compliance with ethical standards

Conflict of interest: Authors do not have any conflict of interests to declare.

Ethical issues: None.

References

1. POWO. Plants of the World Online [Internet]. Facilitated by the Royal Botanic Gardens, Kew; accessed on 5 December 2021. Available from <http://www.plantsoftheworldonline.org/>
2. Govaerts R, Campacci MA, Baptista DH, Cribb PJ, George A, Kretz K et al. World checklist of Orchidaceae. The Board of Trustees of the Royal Botanic Gardens, Kew; 2016
3. Nong VD, Averyanov LV. *Bulbophyllum bidoupense* and *Schoenorchis hangiana* – new species of orchids (Orchidaceae) from southern Vietnam. Phytotaxa. 2015; 213(2):113–21.
4. Singh SK, Agrawala DK, Jalal JS, Dash SS, Mao AA, Singh P. Orchids of India – A pictorial guide. Kolkata: Botanical Survey of India; 2019.
5. Gopalan R, Henry AN. *Schoenorchis nivea* (Lindl.) Schltr. (Orchidaceae) – A new record for India. Journal of Economic and Taxonomic Botany. 1989;13:258.
6. Pandey HS, Dwarakan P, Subramaniam A. *Schoenorchis latifolia* (Fischer) Saldanha – A new record for Tamil Nadu with notes on its cultivation. Journal of Economic and Taxonomic Botany 1995;19:489–90.
7. Kumar M, Sequiera S. A new species of *Schoenorchis* (Orchidaceae) from India. Kew Bulletin. 2000;55:241–44.

§§§