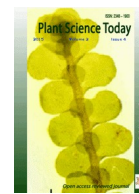




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Research Communication

Symphiodon erraticus (Symphyodontaceae): an addition to the moss flora of the Western Ghats

R. Sreebha, K. C. Kariyappa and A. E. D. Daniels*

Bryology Laboratory, Department of Botany & Research Centre, Scott Christian College, Nagercoil - 629 003, Tamil Nadu, India

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Corresponding Author

A. E. D. Daniels

✉ dulipdaniels@yahoo.co.uk

Abstract

The moss *Symphiodon erraticus* has been discovered from the Western Ghats and is an addition to the moss flora of the W. Ghats. A brief description with illustrations and a colour plate is provided.

Keywords

Moss; *Symphiodon erraticus*; Western Ghats

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Introduction

Mitten (1859), described a new species of moss *Stereodon erraticus* based on specimens from Southeast Asia. Jaeger (1878) placed it under *Symphiodon* Mont. and made a new combination *Symphiodon erraticus*. Since then, this species has been listed only in checklists (Bruehl, 1931; O'Shea, 2002; Lal, 2005). However, Gangulee provided a description based on Kurz's collection from Tongloo (now Tonglu) in Darjeeling, Eastern Himalaya in 1868 between September and November (*vide* Gangulee 1969, Vol. 1(1): vi) and also He (2000) in his revision provided descriptions based on specimens collected by the 19th century European colonizers. Recently, Sahu and Asthana (2014) have reported this species from the Western Himalaya. Therefore, the present report is an addition of this species to the moss flora of the Western Ghats since all earlier Indian reports are from the Himalaya. A brief description with illustrations and a colour plate is provided. Specimens are housed at SCCN.

Symphiodon erraticus (Mitt.) A. Jaeger, Ber. Thätigk. St. Gallischen Naturwiss. Ges.: 296. 1878.

Gangulee, Moss. E. India 2(6): 1517, f. 759. 1977; He, Bryologist 103: 75. 2000. *Stereodon erraticus* Mitt., J. Proc. Linn. Soc., Bot. 2(Suppl.): 111. 1859.

Plants robust, 2–5 cm long, reddish (Figs. 1 & 2). Stems creeping, ca 0.14 × 0.09 mm in cross section, ovate, without a central strand; cortex 1–4-layered; cells 4–8 × 2–4 mm, thick-walled; medullary ones 8–24 × 8–16 mm, thin-walled; branches 0.4–1.5 cm, erect, 2- or 3-pinnate. Leaves many-rowed, patent, 0.8–1 × 0.28–0.45 mm, ovate-lanceolate, concave, entire at margin below, recurved above, toothed at apex; cells linear elongate, sometimes with raised, papillate apices; apical ones 12–28 × 4–6 μm; median ones 40–60 × 4–6 μm; basal ones 28–44 × 4–8 μm; those at extreme base 12–28 × 8–10 μm, quadrate; costa short, double, ca 1/3 as long as leaf. Sporophyte not seen.

Habitat: Rupicolous in evergreen forests and corticolous on *Cullenia exarillata* Robyns (Bombacaceae), an endemic, keystone lofty tree in evergreen forests, 1040 - 1868 m.

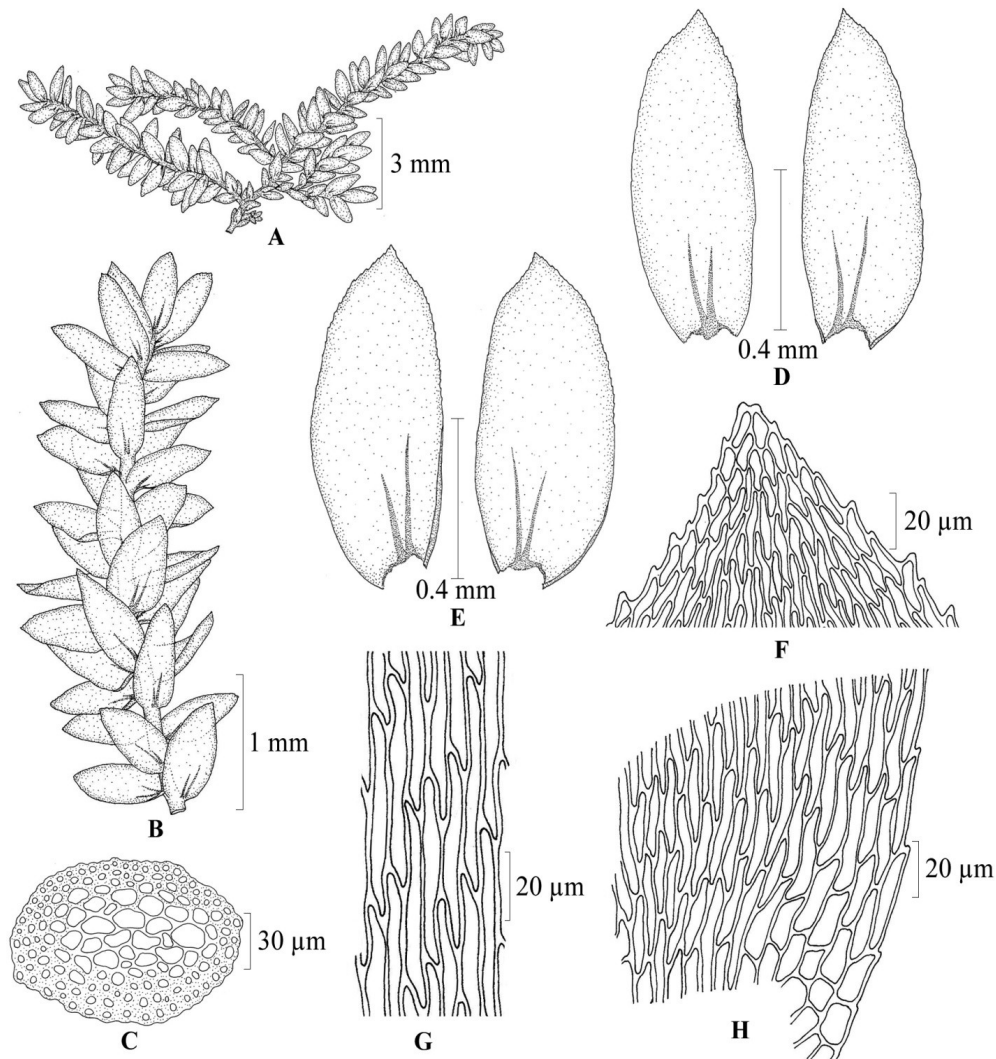


Fig. 1. *Symphyodon erraticus* (Mitt.) A. Jaeger, from Western Ghats (*Daniels & Kariyappa* 9254 p.p.): (A) Plant, (B) portion of plant, (C) cross section of stem, (D) stem leaves, (E) Branch leaves, (F) leaf apical cells, (G) leaf median cells, and (H) leaf basal cells

Distr.: Bhutan, Indonesia, Myanmar, Nepal, Thailand, Sri Lanka and India: Eastern Himalaya and Western Ghats of Tamil Nadu (Tirunelveli), rare.

Specimens examined: Western Ghats: Tamil Nadu, Tirunelveli Dist., Agasthyamalai Biosphere Reserve, Agasthyamalai peak, ca 1868 m, 19.4.2010, *K.C. Kariyappa* 3723 p.p.; Druripparai, ca 1300 m, 20.4.2010, *K.C. Kariyappa* 3746 p.p.; Coimbatore Dist., Anamalai Tiger Reserve, Anamalais, Valparai, ca 1040 m, 19.2.2013, *A.E.D. Daniels & K.C. Kariyappa* 9254 p.p., 9255 p.p.

Discussion

Symphyodon erraticus is so far known only from South and Southeast Asia. In India, it is known from the Himalaya and presently from the Western Ghats. With Sri Lanka and the Western Ghats in Peninsular India generally treated as a single biodiversity hotspot (Gunawardene *et al.*, 2007), this species appears to have a very restricted distribution. Further, its occurrence in the evergreen forests of the Western Ghats stresses the need for conservation of evergreen forests which generally harbour delicate mosses such as *S. erraticus*

which are sensitive to loss of humidity resulting from the opening up of forest canopy.

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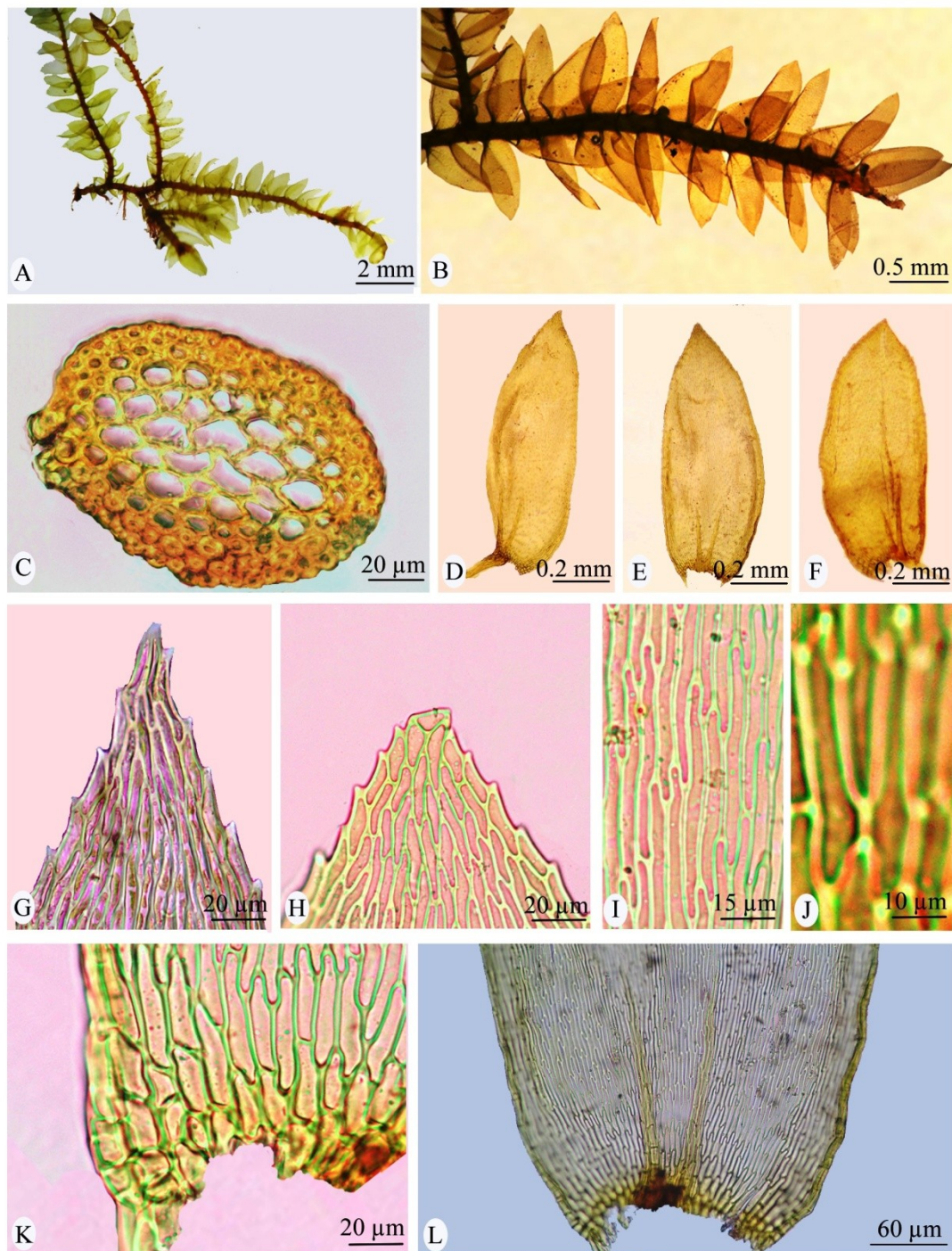


Fig. 2. *Symphyodon erraticus* (Mitt.) A. Jaeger, from Western Ghats (Daniels & Kariyappa 9254 p.p.): (A) Plant, (B) portion of plant, (C) cross section of stem, (D) stem leaf, (E-F) Branch leaves, (G) stem leaf apex, (H) branch leaf apex, (I) leaf median cells, (J) leaf basal cells with papillae, (K) leaf extreme basal cells, (L) lower half of leaf with costa

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