ADDITION TO THE BRYOFLORA OF INDIA

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India, a tropical country, has a great diversity of flora due to the large area and the variety of biogeographical zones met within it. The Western Ghats in peninsular India with its diverse vegetation types provide excellent habitats and microclimates conducive for a lush growth of bryophytes. However, our knowledge on the bryoflora of this part of the country still remains inadequate as all earlier collections were sporadic. Hence, with the aim of inventorying the bryoflora of Agasthymalai and its surroundings, the richest area known in the whole of the Western Ghats, we began to survey 4 years ago. *Sematophyllum humile* (Mitt.) Broth. (Musci : Sematophyllaceae), earlier known from Nepal and Sri Lanka, is recorded here for the first time from the country. It is provided with the correct name and basionym/synonym, if any, a detailed description, notes on habitat and distribution and illustration. Specimens cited are deposited at MH and SCCN (Herbarium of Scott Christian College, Nagercoil).

Sematophyllum humile (Mitt.) Broth. in Engl. & Prantl, Nat. Pflanzenfam. ed. 2, 11 : 431. 1925; Gangulee, Moss. E. India 3 (8) : 1885. 1980. *Stereodon humilis* Mitt., Musc. Ind. Orient.: 102. 1859. *Rhaphidostegium humile* (Mitt.) A. Jaeger, Gen. Sp. Musc. 2 : 397. 1876 - 1879. Type : East Nepal, *Wallich* 802 (BM). **(Fig.1)**

Plant in tufts, yellow-green, glossy; stem 2 - 4 cm long, creeping, appressed; branches 0.5-1 cm, pinnate, erect, parallel, sometimes fascicled. Leaves dense, imbricate, almost erect, appressed to stem when dry, ovate-lanceolate, distinctly concave, narrowly acute at apex, smooth at margin; stem leaves 0.9 - 1.1 × 0.5-0.6 mm; branch leaves 1.5-2 × 0.7-0.9 mm, ecosta cells narrow, rhomboid; upper ones 43 - 46 × 6 - 8 μm; lower ones 63 - 65 × 6 mildly papillose at tips; alar region inflated at extreme angles with 3 large ova 30-45 × 15-18 μm cells and a few small irregular ones on top of them. A

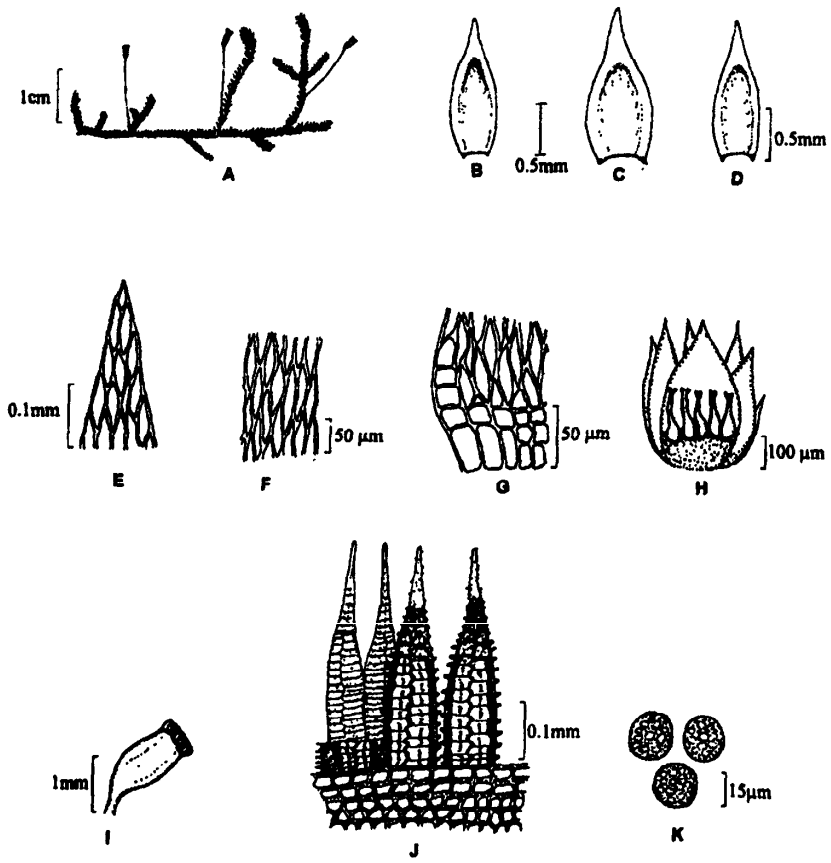


Fig.1(A-K). *Sematophyllum humile* (Mitt.) Broth.

A. Plant; B & C. Branch leaves; D. Stem leaf;
E. Leaf apex; F. Leaf median cells; G. Leaf basal cells;
H. Archegonia with bracts; I. Capsule; J. Peristome; K. Spores.

clutch, 170-180 × 40-45 µm. Sporophytes on main stem; seta c. 8 mm high, slender, erect, almost smooth. Capsules c.1.1 × 0.8 mm, horizontal to inclined, oblong to ovoid, rough; peristome c. 0.33 × 0.075 mm, distinctly papillose; spores 15 - 18 µm, globose, papillose, light brown.

Habitat : Terricolous (road side cuts), in tea plantations, rare.

Distrib.: INDIA : TAMIL NADU, Recorded here for the country from the Western Ghats of Tirunelveli District. EAST NEPAL and SRI LANKA.

Specimens examined : Tamil Nadu, Tirunelveli Distr., W. Ghats, Mancholai, tea plantations, c.1100 m, 24.8.2001, *Daniels* 1774C.

Note : Peristome and spore are described for the first time.

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