

Aerobryopsis wallichii (Bryophyta), a new record for India

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ABSTRACT

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Aerobryopsis wallichii, a rare moss, is reported from the Silent Valley National Park in the Western Ghats as a new record for India.

Key-words: *Aerobryopsis wallichii*, Meteoriaceae, new record, Silent Valley National Park, India

INTRODUCTION

Aerobryopsis Fleisch. (Meteoriaceae) comprises nine validly published species (Crosby et al. 1999) and has a wide distribution in the tropical regions of the world, especially in the southern and eastern Asia. The genus is characterized by hanging branches, complanate foliation, papillose cells and a U-shaped leaf insertion (Buck 1994). The leaves are somewhat clasping, unicostate, with leaf cells linear, very thick-walled, porose and unipapillose on both surfaces. The axillary hairs are composed of 4 short and hyaline cells. The setae are very long and roughened. The capsules have an annulus of small, quadrate cells and striate exostome teeth. The three species of *Aerobryopsis* distributed in India, viz. *A. membranacea* (Mitt.) Broth., *A. longissima* (Dozy & Molk.) M. Fleisch. and *A. eravikulamensis* Manju & Rajesh, are also reported earlier from the Western Ghats. *Aerobryopsis eravikulamensis* Manju & Rajesh is a recent endemic find from the Western Ghats (Manju et al. 2012). During our recent survey in the Silent Valley National Park of Kerala State, we could collect another species of *Aerobryopsis*, viz. *A. wallichii* (Brid.) Fleisch., which was not recorded earlier from India. This species is

described here with photomicrographs. Gangulee (1976), in his studies on the mosses of eastern India and adjacent regions, reported this species from East Nepal and Sri Lanka.

TAXONOMIC DESCRIPTION

Aerobryopsis wallichii (Brid.) A. Fleisch., Musci
Fl. Buitenz. 3: 789. 1908

Plate 1, figures A-H

Synonyms: *Hypnum wallichii* Brid., Bryol. Univ. 2: 416. 1827; *Neckera wallichii* (Brid.) Card. ex C. Mueller in Syn. 2: 141. 1850; *Aerobryum wallichii* (Brid.) C. Mueller, Linnaea 40: 262. 1876; *Papillaria wallichii* (Brid.) Ren. & Card., Rev. Bryol. 23: 102. 1896.

Description: Plants yellowish green, dark brown at maturity, slender, hanging from the branches, about 10 cm long, pinnately branched; Stem 60 µm wide, T.S. of stem shows 3-5 layers of small (3-5 µm wide), thick walled outer cortical cells and 3-4 layers of large (5-8 µm wide), thin walled central cortical cells; leaves complanate, lanceolate, 2-2.5 mm long, 0.4 mm broad, broader at base, base flat, apex gradually narrowed into a long acuminate point, acumen 0.4-0.5 mm long,

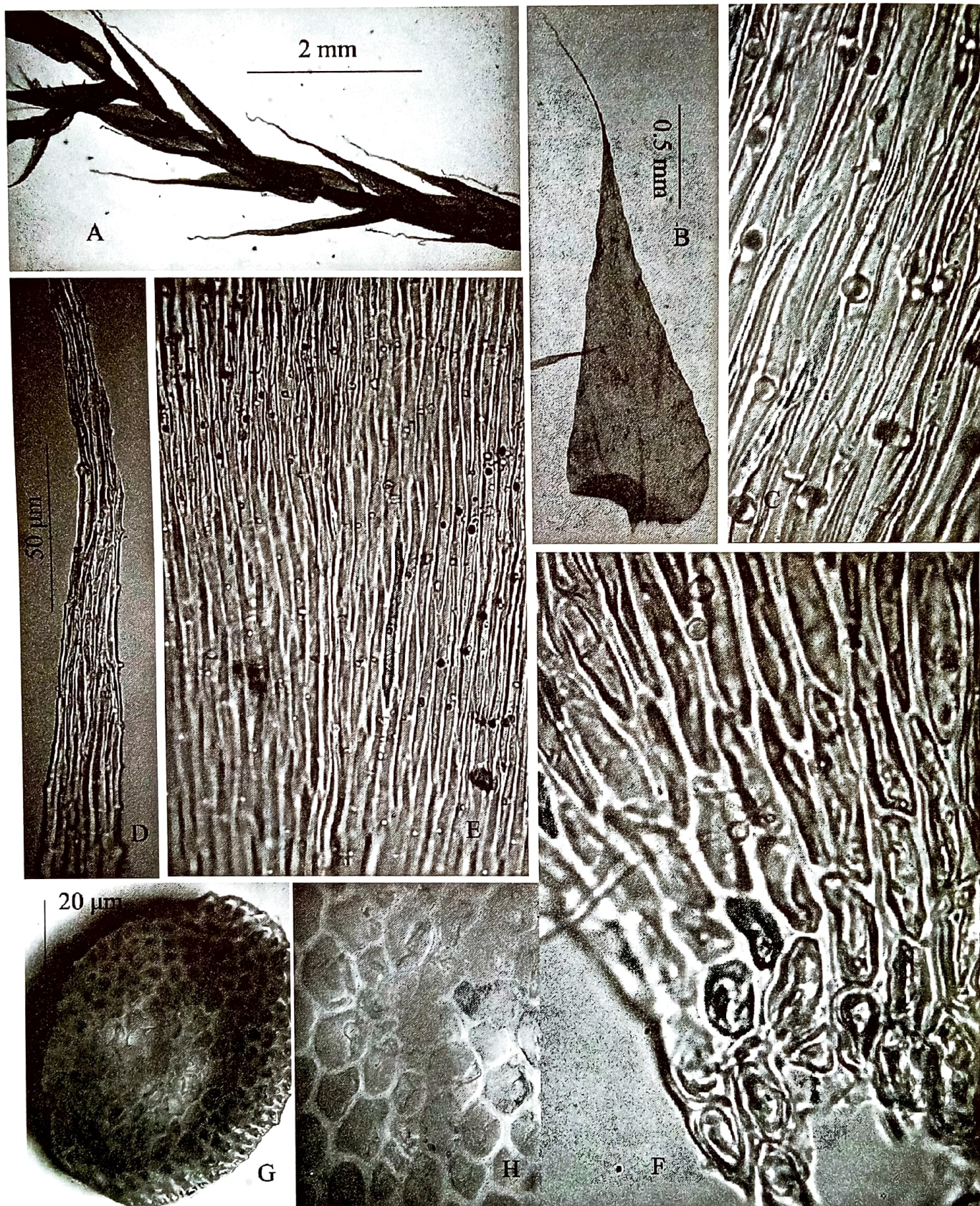


Plate 1

A-H. *Aerobryopsis wallichii*. A. Branch. B. Leaf. C. Leaf papilla of leaf centre. D. Leaf tip cells. E. Leaf middle cells. F. Leaf basal cells. G. Stem C.S. H. Middle cortical cells at stem.

margin denticulate throughout, sharp at tip; costa single vanishing half the leaf, clear at the basal part, becomes faint at tip; leaf cells narrow, elongate with a single central papilla except at apex and basal cells; 40-52 x 6-8 μm at tip, 55-60 x 5 μm below; alar cells little prominent with smooth wide cells, 15-19 x 13-15 μm .

Specimen examined: India, Kerala, Palakkad district, Silent Valley National Park (1200 m), Rejilesh, Anoop & Hareesh 5337 (MBG), 18.03.2011.

Distribution: India (Kerala), Eastern Nepal, Sri Lanka.

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