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Research Communication

New distribution record of a rare taxa *Gottschelia schizopleura* (Spruce) Grolle, of Jungermanniales occurring in Anamudi shola National Park in the Western Ghats of Kerala

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Abstract

A rare liverwort *Gottschelia schizopleura* (Spruce) Grolle, of Jungermanniales is discovered from the Western Ghats of Kerala. A brief description with colour plate is provided.

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Introduction

The genus *Gottschelia* of the family Lophoziaceae is represented with four species viz., *G. schizopleura* (Spruce) Grolle, widespread in the palaeotropics, *G. crenata* Grolle from New Guinea (1,2), *G. patoniae* Grolle, Schill. & D.G.Long was described from the Eastern Himalaya (3) and a fourth species *G. grollei* D.G.Long & Vañ'a from China (4). *G. crenata* was later replaced by *G. maxima* (Steph.) Grolle (3). The *G. schizopleura* was instituted as *Jungermannia schizopleura* by Spruce (5) and later described under the name of *Anastrophyllum cucullifolium* by Stephani (6), and as *Jamesoniella microphylla* (Nees)

Schiffn., by Pande and Singh (7). Later, Grolle (1) described it as *Gottschelia schizopleura* (Spruce) Grolle. During recent survey from Anamudi Shola National Park in the Western Ghats of Kerala, authors could collect an interesting species of Jungermanniales. On critical study it was identified as *Gottschelia schizopleura* (Spruce) Grolle. It is a rare terricolous liverwort earlier reported from Nilgiri hills of Tamil Nadu in India (7,9). The present collection of this genus along with the species from Anamudi Shola National Park shows its extended distribution and reported here as a new record for Kerala state.

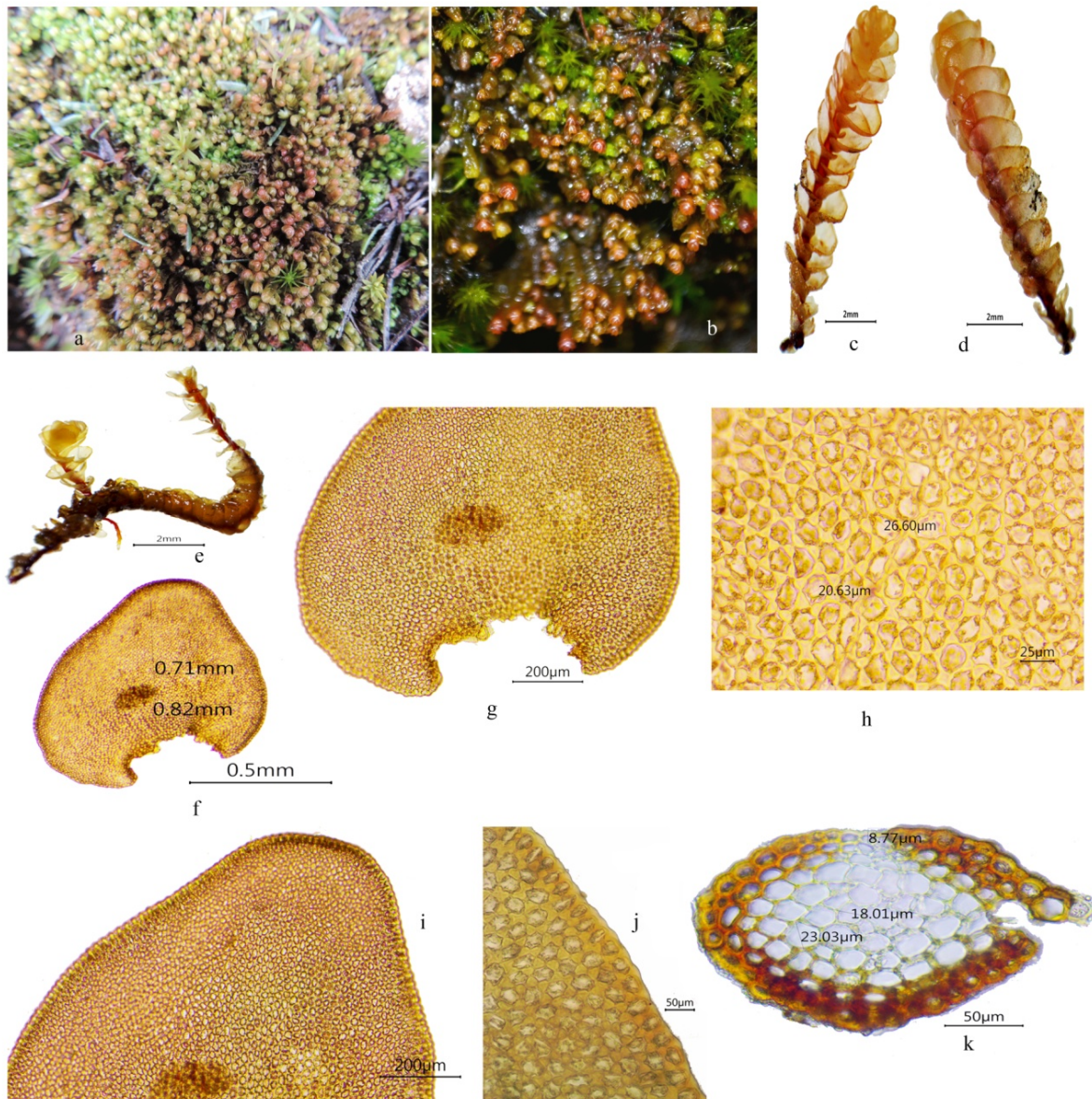


Fig.1. *Gottschelia schizopleura*; a&b. habit from the field, c. ventral surface of mature branch, d&e. dorsal surface of branch, f. leaf lobe, g. leaf base, h. leaf cells, i. leaf apex, j. leaf margin cells, k. c.s of stem

Taxonomy

Type locality: Madagascar (Boswell) as *Jungermannia schizopleura*.

Gottschelia schizopleura (Spruce) Grolle., *J. Hattori Bot. Lab.* 31: 16. 1968; Udar et Kumar, *J. Indian Bot. Soc.* 61: 250. 1982; *Jungermannia schizopleura* Spruce, *Trans. Proc. Bot. Soc. Edinberg* 15: 577.1885; *Anastrophyllum cucullifolium* Steph., *Spec. Hepat.* 6: 104 (1917); *Jamesoniella microphylla* (Nees) Schiffn., in Pande and Singh, *Bull. Bot. Soc. Univ. Saugar* 11: 1. 1959.

Plants greenish to reddish brown, 20-30 mm long, rigid, suberect, stem erect, smooth, 160-170 µm in diameter, branching lateral, cortical region 2-3 layered thick, deep brown cells, 8-12×10-18µm, medullary cells hyaline, cells 18-24 µm, thin

walled; rhizoids very few at the base of the stem; leaves alternate, obliquely inserted, succubus, ventral margin overlap entire stem, ovate to oblong, interlocks dorsally, upper leaves large, 0.7×0.8 mm, basal smaller with 0.3-0.4 mm, apex obtuse, leaf margin smooth, incurved, marginal cells 14-20 µm, flat or incurved, median cells 20 ×26 µm, basal cells distinct, 26-36 µm, thin to thick walled with prominent bulging trigones, intermediate nodular thickening present, oil bodies numerous per cell; underleaves absent, reproductive structures not observed (Fig. 1).

Global distribution: Africa- E. Africa, Madagascar, Asia- China, Celebes, India, Indonesia (Borneo, Java, Sumatra) Malaysia, Malacca, Philippines, Sri Lanka, Norfolk Island, Papua New Guinea, West Iran, South India. (1,2,3,7,9,10 & 11)

Distribution in India: South India: Tamil Nadu (Avalanche, ca. 2439 m; Palni Hills, ca. 2000 m, Ootacamund (Dodabetta), ca. 2400 m; Kerala (Anamudi Shola National Park in Idukki district-present collection) (7&8).

Ecology: Terricolous, grows on moist and shady soil and also on rocky patch along with *Campylopus flexuosus* at high altitude grass lands.

Specimen examined: India, Kerala, Idukki district (Anamudi Shola National Park (Iddalymotta), 2400m, 24.3.2016, *Mufeed*, 10003a (ZGC), 10003b (CALI).

Authors contribution: MB carried out the field work and collected the specimens, prepared the photoplate, MCN identified the specimen upto genus level and prepared the manuscript.

Competing Interest

The authors have declared that there are no competing interests.

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