

***DISTICHOPHYLLUM SCHMIDTII* BROTH. (HOOKERIAEAE) –
A NEW REPORT FROM BANGLADESH**

KHURSHIDA BANU-FATTAH¹

Department of Botany, Eden Girls' College, Dhaka-1205, Bangladesh

Key words: Distichophyllum schmidtii, Pleurocarpous moss, Hookeriaceae, Bangladesh

Abstract

Distichophyllum schmidtii Broth., a Pleurocarpous moss of the family Hookeriaceae under the order Hookeriales, is reported for the first time from Bangladesh. Detailed description and illustration are given.

While working on the mosses of Bangladesh, the author came across with a beautiful moss which was thought to be an Acrocarpous moss by its first appearance. There were only a few plants mixed with an unidentified species of Jungermanniales which after a thorough study found to be a Pleurocarpous moss. It was identified as *Distichophyllum schmidtii* Broth. of the family Hookeriaceae under the order Hookeriales.

This moss is a rare one and was only collected by Sinclair (1955) from Kelatuli, Cox's Bazar, on dripping wet shady side of a ravine. This moss was later collected from St. Martin's Island, Cox's Bazar by a student of Jagannath College which could not be collected any more. This moss is a South-east Asian species. It was not found in Eastern India but was reported from Thailand (Gangulee 1977).

In Checklists of Pleurocarpous mosses of Bangladesh Khatun and Hadiuzzaman (1994, 1995) reported two species of the family Symphyodontaceae of the order Hookeriales but none from the family Hookeriaceae. Tixier while collecting plants from different forest reserves of Chittagong zone, along with the beach of Cox's Bazar and hill of Sitakund collected and reported the species *Chaetomitrium philippinense* Mont. of the family Hookeriaceae from Kaptai, Rangamati, on twigs (1967). This was enlisted in the Comprehensive Checklist of Bryophytes of Bangladesh (Banu-Fattah 2001).

Distichophyllum schmidtii Broth. of the family Hookeriaceae under the order Hookeriales is being reported for the first time from Bangladesh with a detailed description and illustration along with a short note.

Distichophyllum schmidtii Broth. Bot. Tidskar. 24: 122 (1901).

(Fig. 1)

Dioicous, yellow-green plants mixed with plants of Jungermanniales. Shoot in lax tuft, erect, scarcely branched, up to 2.0 cm long and 4-5 mm broad at apex. Stem densely foliated. Leaves erectopatent, obovate, 1.5-2.5 mm long and c. 1 mm wide, broad in upper half, narrower at base, not much changed but only shrunk and undulate when dry. Apex obtuse, rounded, suddenly narrowing into a short apiculus. Leaf, margin entire, often wavy, bordered. Costa single, covering about 3/4 of the whole leaf, c. 33 µm thick at base. Leaf cells thin walled, typically hexagonal, specially in the middle and upper portion, cells 20-28 µm long and c. 20 µm broad at upper portion, 20-52 µm long and c. 28 µm broad in middle, cells being larger towards costa; basal cells

¹Present address: C/o. Professor Quazi Abdul Fattah, Department of Botany, University of Dhaka, Dhaka-1000, Bangladesh

lax, hexagonal to sub-rectangular, 80-120 μm long and 16-28 μm broad becoming narrower towards border. Leaf completely bordered all around by 2-3 rows of linear, thick walled cartilagenous cells of c. 140 μm long and 4-8 μm broad, 1 or 2 rows at apex passing into apiculus. A young sporophyte on short lateral shoot in the upper part. Perichaetial leaves smaller, without costa and bordered by only one row of elongated cells. Seta curved, 3 mm long, scabrous on entire length. Capsule small (immature), pyriform, slightly inclined, 0.53 mm long and 0.26 mm in diameter, mouth narrower. Exothelial cells irregularly quadrate to hexagonal or short rectangular, 12-32 μm long and 12-20 μm broad. Operculum conical, scabrous, c. 100 μm high. Calyptra scabrous on surface.

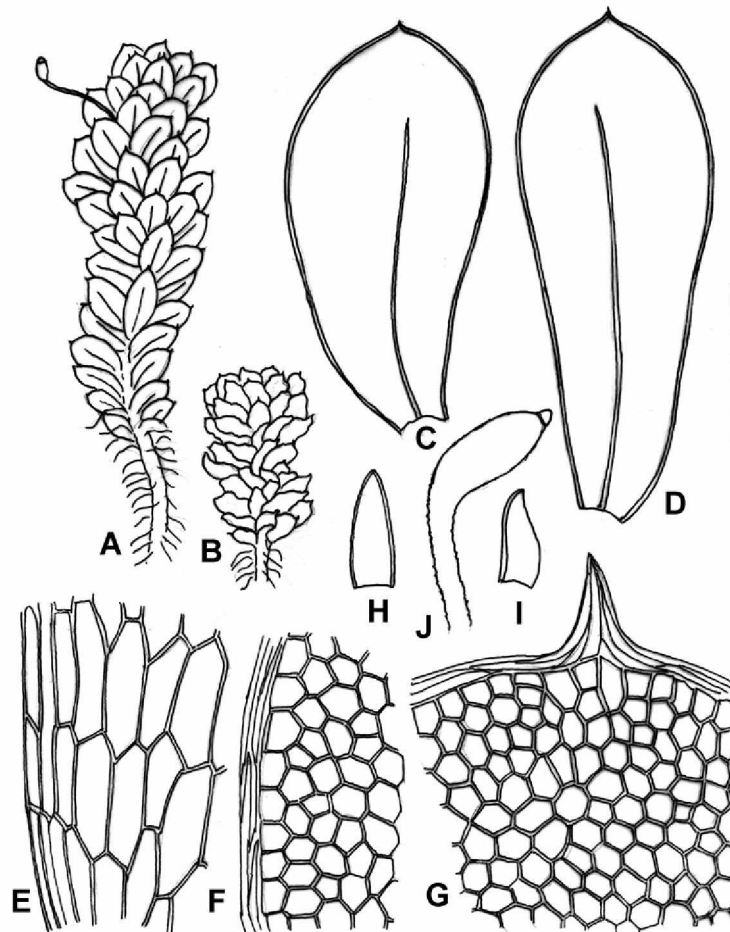


Fig. 1. *Distichophyllum schmidtii* Broth. A. wet plant ($\times 5$), B. dry plant ($\times 5$), C & D. leaves ($\times 15$), E. basal laminal cells ($\times 112$), F. middle laminal cells ($\times 112$), G. apical laminal cells ($\times 112$), H & I. perichaetial leaves ($\times 15$), J. capsule with seta and operculum ($\times 15$).

Specimen examined: **Cox's Bazar**, St. Martin's Island, near PWD Rest House, on soil, Hons. Examinee, Roll 34448, Govt. Jagannath University College, 1989.

Note: Densely foliated stem; typical hexagonal, thin leaf cells; obtuse apex suddenly narrowing into a short apiculus with thick walled cartilagenous cells passing into apiculus; slightly asymmetrical, small capsule; scabrous seta, operculum and calyptra are some diagnostic characters.

References

- Banu-Fattah, Khurshida, 2001. A Comprehensive Checklist of the Bryophytes of Bangladesh. Bangladesh J. Plant Taxon. **8**: 7-18.
- Gangulee, H.C. 1977. Mosses of Eastern India and Adjacent Regions. A monograph. Part II (Fasc. 6), Calcutta, India, pp. 1463-1546.
- Khatun, H. and S. Hadiuzzaman. 1994. A preliminary Checklist of Pleurocarpous mosses of Bangladesh. Bangladesh J. Plant Taxon. **1**(2): 61-63.
- Khatun, H. and S. Hadiuzzaman. 1999. Addition to the Checklist of the Pleurocarpous mosses of Bangladesh. Dhaka Univ. J. Biol. Sci. **8**(2): 207-209.
- Sinclair, J. 1955. Flora of Cox's Bazar, East Pakistan. Bull. Bot. Soc. Bengal. **9**(2): 110-111.
- Tixier, P. 1967. Bryophytae Indosinicae. The Dacca Univ. Stud. Vol. **XV**: 1-14.

(Manuscript received on 10 April, 2005; revised on 4 May, 2005)