

Anastrophyllum jorgensenii Schiffn. from western Himalayas

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Nath, V, Sharma, S & Asthana, AK 2002 *Anastrophyllum jorgensenii* Schiffn from western Himalayas. *Geophytology* 30(1&2): 111-112.

Anastrophyllum jorgensenii Schiffn. earlier known from eastern Himalayas, is being now reported from Garhwal hills, western Himalayas, India for the first time. This taxon is characterised by dark brown, 3-4 cm long plants with cluster of leaves at apical portion of stem, leaves concave having U-shaped or hemispherical deep sinus.

Key-words- *Anastrophyllum jorgensenii*, Bryoflora, Western Himalayas

INTRODUCTION

THE genus *Anastrophyllum* (Spruce) Steph. belonging to family Jungermanniaceae was earlier treated by Spruce (1876) as *Jungermannia* subgenus *Anastrophyllum* from Scotland and Danubian provinces along with the distribution of its seven species: *A. donianum* Hook., *A. piligerum* Nees., *A. leucocephalum* Tayl., *A. calocystum* Spruce, *A. schismoides* Mont., *A. puniceum* Nees. and *A. monodon* Tayl. Later on it attained the generic status and described as *Anastrophyllum* by Stephani (1893). Grolle (1964) recorded *A. jorgensenii* Schiffn. from eastern Himalayas.

Recently in a new annotated checklist of Hepatics and Anthocrotes of India Parihar *et al.* (1994) also listed 7 species of the genus *Anastrophyllum* (Spruce) Steph. from different Himalayan regions of India viz. *A. assimile* (Mitt.) Steph., *A. bidens* (Nees) Steph., *A. donianum* (Hook) Steph., *A. jorgensenii* Schiffn., *A. minutum* (Schreb.) Schust., *A. piligerum* (Nees) Spruce, and *A. revolvens* Herz.

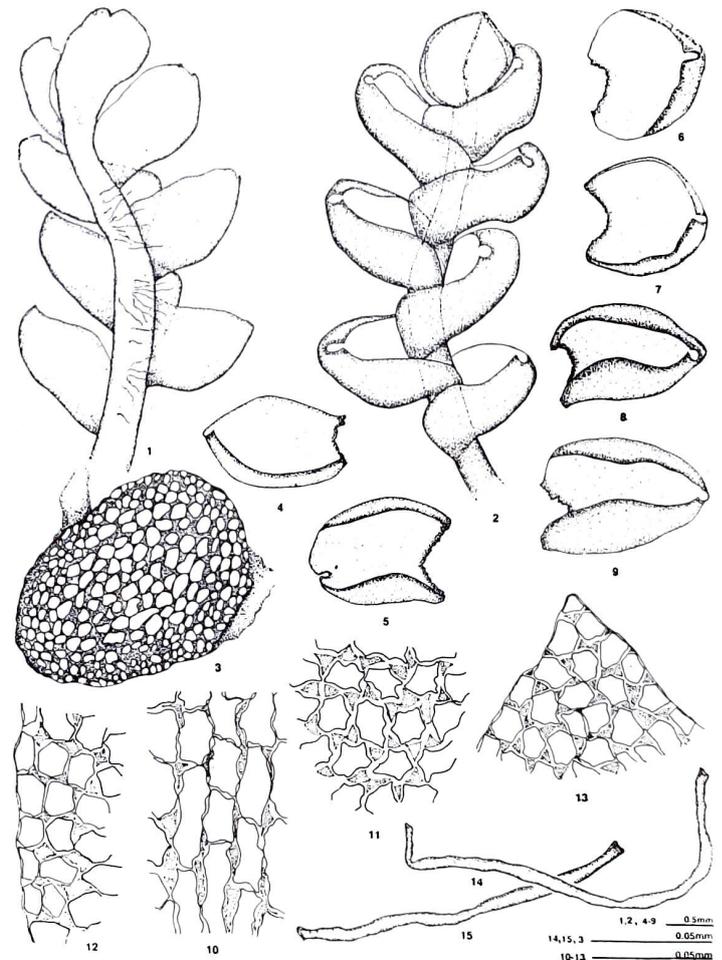
Anastrophyllum jorgensenii Schiffn, known from India (eastern Himalayas) and some hilly regions of Nepal has now an extended range and is being reported for the first time from Janglat Chowki, Chakrata, district Dehradun, Garhwal hills, western Himalayas, India.

DESCRIPTION

Anastrophyllum jorgensenii Schiffn. Hedwigia. 49: 396 (1910)

Syn: *Anastrophyllum alpinum* Steph., Spec. Hep. 6: 103 (1917)

Plants dioecious 3-4 cm long, reddish to dark brown. Stem oval, 108x78 μm , transverse section shows 3-15 cells across diameter, stem cells irregular.



Figures 1-13 : *Anastrophyllum jorgensenii* Schiffn.

1: A part of vegetative plant (dorsal view). 2: A part of vegetative plant (ventral view). 3: Transverse section of stem. 4-9: Vegetative leaves. 10: Basal cells of the leaf. 11: Median cells of the leaf. 12: Marginal cells of the leaf. 13: Apical cells of the leaf. 14-15: Rhizoids.

lar, quadrate, pentagonal or oval in shape, medullary cells 13.2-15.6 x 12 μm , cortical cells 10.8 x 12.8 μm . Leaves concave having supra-basin (leaf depth) 9-10 cells deep, margins incurved and cannot be flattened without tearing them compact robust in appearance dorsally, dark brown, fragile, less secund, more convave, as broad as long, 1x1-1.5 mm, sub-transversely inserted, the antical half of line of insertion nearly transverse and postical half oblique, towards apex of stem appear lobe-like as two of the leaves very close to each other, with U-shaped or hemispherical deep sinus, leaf cells quadrate or rectangulate will strongly incrassate (wavy), oblique and somewhat bulging trigones, corner basal cells smaller and quadrate, 12x9.6 μm , basal cells in middle of leaf strictly rectangulate, 48x14 μm ; median cells 15.2x12 μm ; marginal cells 13.6x8.8 μm and apical cells 12.8 x 14.4 μm .

Specimens examined: Anastrophyllum jorgensenii Schiffn, India, Western Himalayas, district Dehradun, Chakrata, alt. 2135 m, 7 Oct. 1976, leg, S. Chandra, LWG 202774. Det. V. Nath, S. Sharma & A.K. Asthana.

ECOLOGY AND DISTRIBUTION

Anastrophyllum jorgensenii Schiffn. grows in dense tuft on corticolous habitat at Janglat Chowki,

Chakrata, district Dehradun at the altitude of ca 2135 m. in association with leafy liverworts *Lepidozia* sp., *Lophozia* sp., *Blepharostoma* sp. and a species of *Dicranum* moss. The temperature ranges from maximum 15°C to minimum 8°C and rainfall varies from 328.5-150 cm approximately. This taxon is distributed beyond the Indian subcontinent in Nepal, South west Norway, North West Schotland, North West Yunnan, Europe, Australia and China including India.

ACKNOWLEDGEMENTS

The authors are grateful to Director, National Botanical Research Institute, Lucknow for encouragement and providing facilities. Thanks are also due to Council of Science and Technology, Uttar Pradesh, Lucknow for financial assistance.

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