

SHORT COMMUNICATIONS

SPHAGNUM SQUARROSUM PERS.—A NEW RECORD FOR INDIA

The genus *Sphagnum* is represented in India by 18 species. Of these *S. fimbriatum* Wils. is reported from Pangi in Western Himalayas, and *S. ceylanicum* Mitt. from Nilgiris in South India, while the rest are confined to Eastern Himalayas (Sharma, 1949).

In June 1962, one species of this genus was collected by Dr. N. C. Nair under Field No. BSI/N. C. 22403 from Kalpa (Himachal Pradesh) at an altitude of 3100 m, which on thorough investigation was found to be *S. squarrosus* Pers., and its identity was further confirmed by Mr. A. H. Norkett of British Museum (Nat. Hist.), London. This taxon is widely distributed in Europe and North America and also known from Siberia and Japan, and is so far not reported from India.

The various species of *Sphagnum* are readily known as such by the unique branching system (in whorls), the distinct stem and branch leaves, and the peculiar differentiation of the tissues of the leaf to give a regular pattern of alternating hyaline and green cells. The species under report is closely allied to *S. teres* (Schap.) Aongstr., but differs from the latter in the following features:

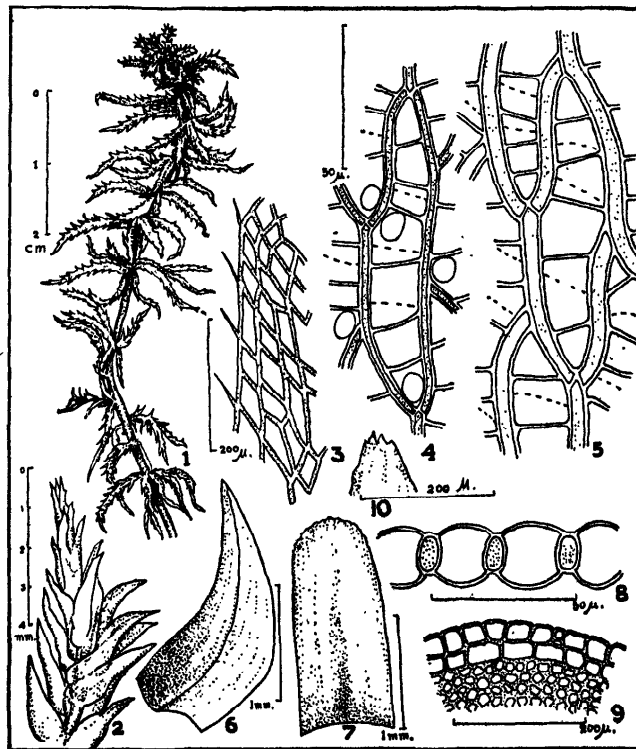
Plants more robust; epidermal cells of the stem in 2-3 layers and branch leaves strongly squarrose from middle.

In this paper a detailed description of the taxon based on Indian specimen with illustrations is given.

Sphagnum squarrosus Pers.

Plants tall, robust, laxly caespitose, pale yellow to greenish yellow. Stem rigid, brownish. Epidermal cells of the stem in 2-3 layers, without pores. Branches 4-5 in a fascicle, both horizontal and pendent, the 2-3 horizontal ones tumid and flagellate, while pendent branches slender and closely appressed to the stem. Stem leaves about 2 mm long, broadly oblong-lingulate, rounded at apex, the margin in the upper part fimbriated due to the erosion of the marginal cells; cells without fibres or pores, at the apex short and broad, gradually becoming longer and narrower towards the base, 2-3 rows at the margin in the lower half of the leaf somewhat compressed forming a border. Branch leaves imbricate, squarrose from middle, near the apex of the branch erect to erecto-patent, about 2.5 mm long, deeply concave, broadly ovate, gradually narrowed from the middle to an acute 4-5 toothed apex; hyaline cells fibrose, with large pores, in the upper part 16-20 μ wide, 2-5 times longer than

broad, gradually enlarging towards the base, enlargement more pronounced in the cells towards



Sphagnum squarrosus Pers.

Figs. 1-10: 1. Plant. 2. Shoot apex. 3. Cells from apical margin of stem leaf. 4. Cells from ventral side of branch leaf. 5. Cells from dorsal side of branch leaf. 6. Branch leaf. 7. Stem leaf. 8. T. S. branch leaf. 9. T. S. stem. 10. Apical portion of branch leaf.

margin, about 35 μ wide, 5-6 times longer than broad, 2-4 cells at the extreme margin narrow and elongated; forming a distinct border which extends to the apex; chlorophyllose cells widely oval in section, emerging on both sides of the leaf but more prominent on the dorsal than on the ventral face.

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LITERATURE CITED

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