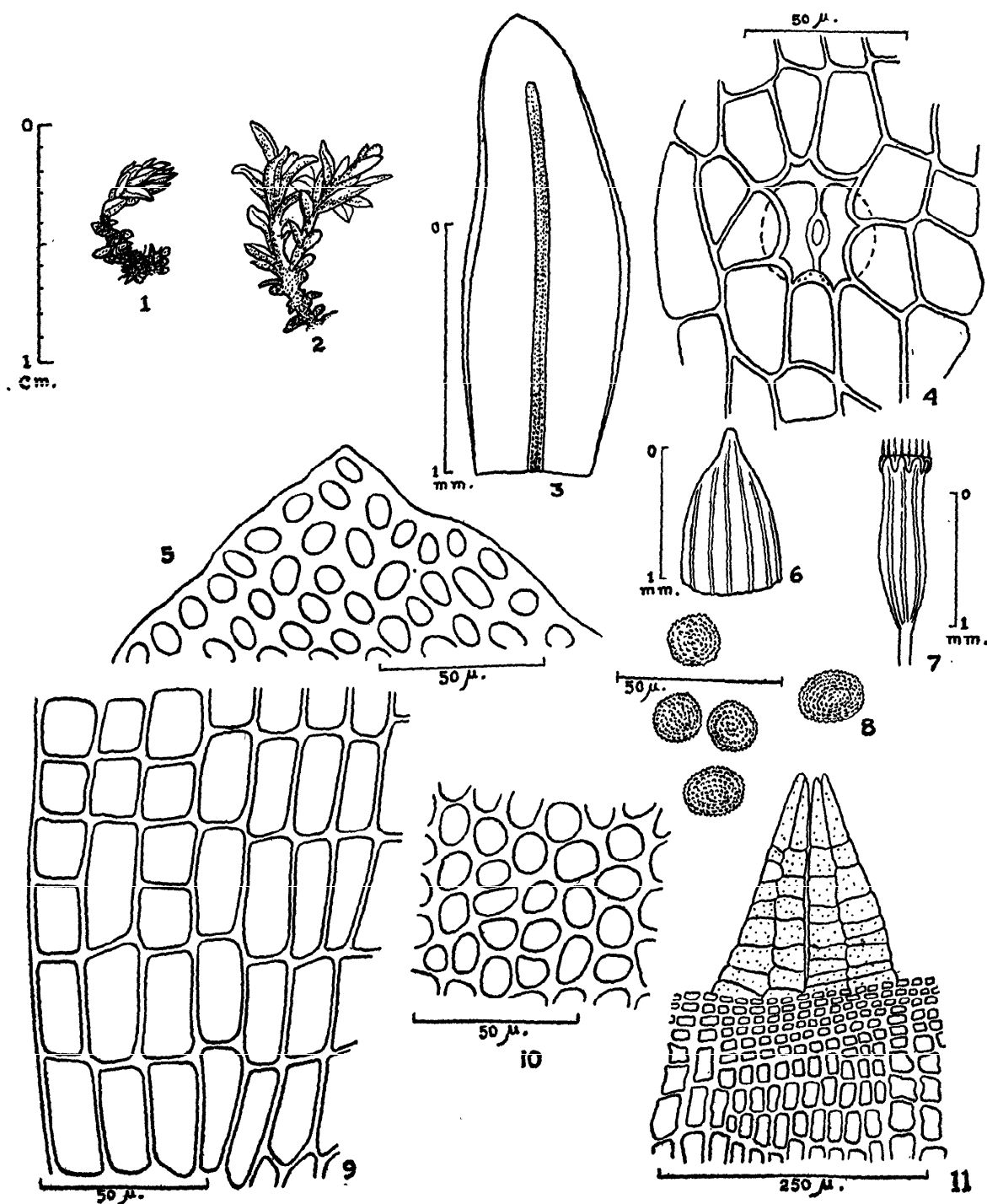


ORTHOTRICHUM PUMILLUM SWARTZ.—A NEW RECORD FOR INDIA

During an exploration tour to Kashmir for collection of mosses a species of *Orthotrichum* in fruiting condition was collected from Tangmarg, where it was growing abundantly in extensive patches on trunks of trees by the side of a road leading to Gulmarg. The moss on examination

was found to be different from other species of the genus hitherto known from India. A part of the material was sent to Mr. A. H. Norkett who identified it as *Orthotrichum pumillum* Swartz. This species widely distributed in Europe, North America and also reported from North and South



Orthotrichum pumillum Swartz.

Figs. 1-11 : 1 & 2. Plants. 3. Leaf. 4. Stoma of capsule. 5. Leaf apex. 6. Calyptra. 7. Capsule (dry). 8. Spores. 9. Basal cells. 10. Laminar cells. 11. Peristome.

Africa has not previously been recorded from this country and thus is a new record for India.

This genus consists of about 200 species mostly distributed in the temperate regions of the world. The identification of the species is rather difficult owing to close resemblance in vegetative characters to many of the species in this genus. Much importance, therefore, is attached to the fruiting characters such as the length of seta, nature of stomata, position of the peristome in dry condition, shape of the capsule when dry and the hairiness of calyptra.

Orthotrichum pumillum Swartz. in Month. Rev. 34: 538. 1801.

In close tufts, pale green or yellowish green. Stem 5 mm tall, stout. Leaves when dry erect and imbricate, when moist erecto-patent to spreading, 1.5-2.5 × 0.7-0.8 mm, oblong-lanceolate; apex broadly obtuse or shortly pointed; margin entire, recurved; nerve greenish, near the base thick and wide, 60-125 μ broad, gradually becoming narrow and obscure upwards, ceasing below the apex; cells rounded-hexagonal or oval, 14-17 μ , thick-walled, more or less distinct, minutely papillose, somewhat smaller near apex, towards the base pellucid, shortly

rectangular, 15-17 × 25-35 μ , a few rows towards margin quadrate. Capsule immersed to more or less emergent on a very short seta, small, oval-oblong, yellowish brown, ribs eight, strong, orange, of 3-4 rows of cells with the lateral walls strongly incrassate, when dry sulcate, narrow and contracted below the mouth; stomata in the middle of the capsule, immersed, partly covered by the overlapping superficial cells; peristome double, outer teeth in 8 pairs, reflexed when dry, pale brown, finely papillose, processes 8. Calyptra pale yellow to brownish yellow, more or less sulcate, naked or with a few erect hairs. Spores 14-20 μ , grossly papillose.

Closely related to *Orthotrichum alpestre* Hornsch., but differs in the short size of plant and smooth calyptra.

WESTERN HIMALAYAS: Kashmir, Tangmarg, 2500 m, Sept. 9. 1961, Vohra & Wadhwa 548 (CAL).

ACKNOWLEDGEMENT

The author desires to express his indebtedness to Mr. A. H. Norkett for the identification of the specimen.

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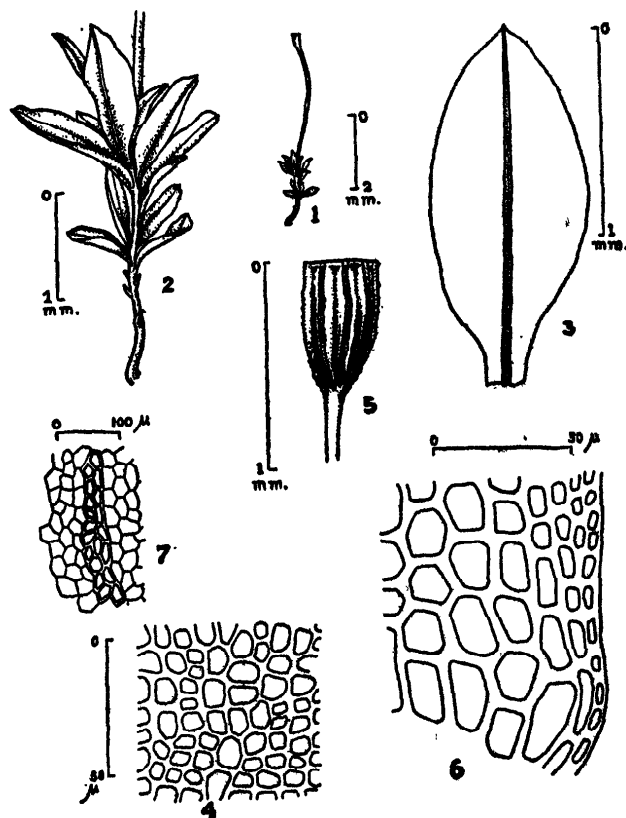
MERCEYOPSIS ANGULOSA BROTH. ET DIX.—A NEW RECORD FOR WESTERN HIMALAYAS

In the Central National Herbarium, Calcutta, recently the authors came across a specimen bearing a manuscript name *Hyophila minuta* Broth. collected by Kabir Khan from Bagheshwar, Almora Dist. (Western Himalayas). On verification it was found to be *Merceyopsis angulosa* Broth. et Dix. This species was described by Dixon (1910) from Sikkim and was not reported again from any part of the country. The present specimen is thus a new record for Western Himalayas.

It differs from the other two Western Himalayan species of *Merceyopsis*, namely *M. hymenostylioides* Broth. et Dix. and *M. robusta* Dix., by spatulate, widely obovate, apiculate leaves and 8-angled capsule.

Merceyopsis angulosa Broth. et Dix. in J. Bot. 48: 302, 1910. *Hyophila minuta* Broth. ms. in Herb. Calcutta.

In lax tufts, green or yellowish green. Stems erect, simple or once forked, 2-3 mm high. Leaves crowded towards stem apex, on drying tubular and strongly incurved, not crisped, when moist spreading, 1-2 mm long, from a very narrow base spatulate, widely obovate, apiculate; margin erect, entire; nerve brownish, thick, excurrent into an



Merceyopsis angulosa Broth. et Dix.

Figs. 1-7: 1. & 2. Habit. 3. Leaf. 4. Upper cells. 5. Capsule. 6. Basal cells. 7. Rib of the capsule.