

BRACHYTHECIUM BUCHANANII (BRACHYTHECIACEAE, MUSCI) –  
A NEW SPECIES FOR UZBEKISTAN

BRACHYTHECIUM BUCHANANII (BRACHYTHECIACEAE, MUSCI) –  
НОВЫЙ ВИД ДЛЯ ФЛОРЫ УЗБЕКИСТАНА

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Abstract

*Brachythecium buchananii* (Hook.) A. Jaeg. is found in Uzbekistan for the first time. This species is widespread in China, Korea, Japan, and Himalayas, and was also known from South Siberia, Russian Far East, and from Pakistan. The differential characters of *B. buchananii* are discussed and illustrated.

Резюме

*Brachythecium buchananii* (Hook.) A. Jaeg. впервые выявлен для Узбекистана. Ранее этот широко распространенный в Китае, Корее, Японии и Гималаях вид был известен для Южной Сибири и Российского Дальнего Востока; кроме того этот вид известен из Пакистана. Обсуждаются и иллюстрируются диагностические признаки *B. buchananii*.

Identifying old collections from various areas of the Middle Asia stored in MW, we found a small, ca. 40 specimens, collection of L. Nazarenko from Uzbekistan. One species from it appeared to be *Brachythecium buchananii*, a species new for Uzbekistan as well as the whole area of the Middle Asia (cf. Mamatkulov & al., 1998).

The label is as follow: Gorno-archevy [ =Mountain Juniperus] Reserve “Guralash”, {Kuyan-Saj? – ambiguous handwriting}, W-faced slope, in arborescent *Juniperus* stand, coll. L. Nazarenko #122, 24.V.1947 (MW).

The locality is on the Northern macroslope of TurkestanRidge, ca. 39°40'N – 68°15-20'E.

*Brachythecium buchananii* is a species widespread in China, Korea, Japan, and Himalayas, and it was found also in South Siberia (Ignatov, 1998); Russian Far East (Ignatov & al., 2000), and one very isolated locality is in Central Yakutiya (Krivoshapkin & al., 2001). Westwards it ranges to Pakistan (Nishimura & Higuchi, 1993). In the Middle Asia *B. buchananii* was never recorded, apparently because its presence in the area simply was not expected. It is quite likely, that an expanded search in Tadjikstan allow to discover it there too.

*Brachythecium buchananii* more commonly resembles a small expression of *B. glareosum*, with very concave basal part, which has very lax areolation. However the variability of this species is enormous, resulting in that it was described many times under different names (cf. Ignatov & Koponen, 1996). Plants from more xeric environments, including that from Uzbekistan, often have less concave base, and the basal quadrate or subquadrate cells sometimes are quite numerous, reaching more than half distance to the costa. These undeveloped plants might be difficult to distinguish from the so unrelated species as *Sciurohypnum (Brachythecium) plumosum* (Hedw.) Ignatov et Huttunen. The latter species is rather homogeneous in boreal regions of the northern Hemisphere, but in East Asia it often grows in rather dry places, producing very slender plants with long-acuminate leaves and relatively long cells. The reliable character which might help in the case when the leaf features are not suggestive is the shape of pseudo-paraphyllia (called as juvenile leaves by some authors): in *Sciurohypnum* they are acute and triangular in shape, whereas in *B. buchananii* they are acuminate – more shortly around dormant initials (cf. Fig. 1-6), or more longly in uppermost part of

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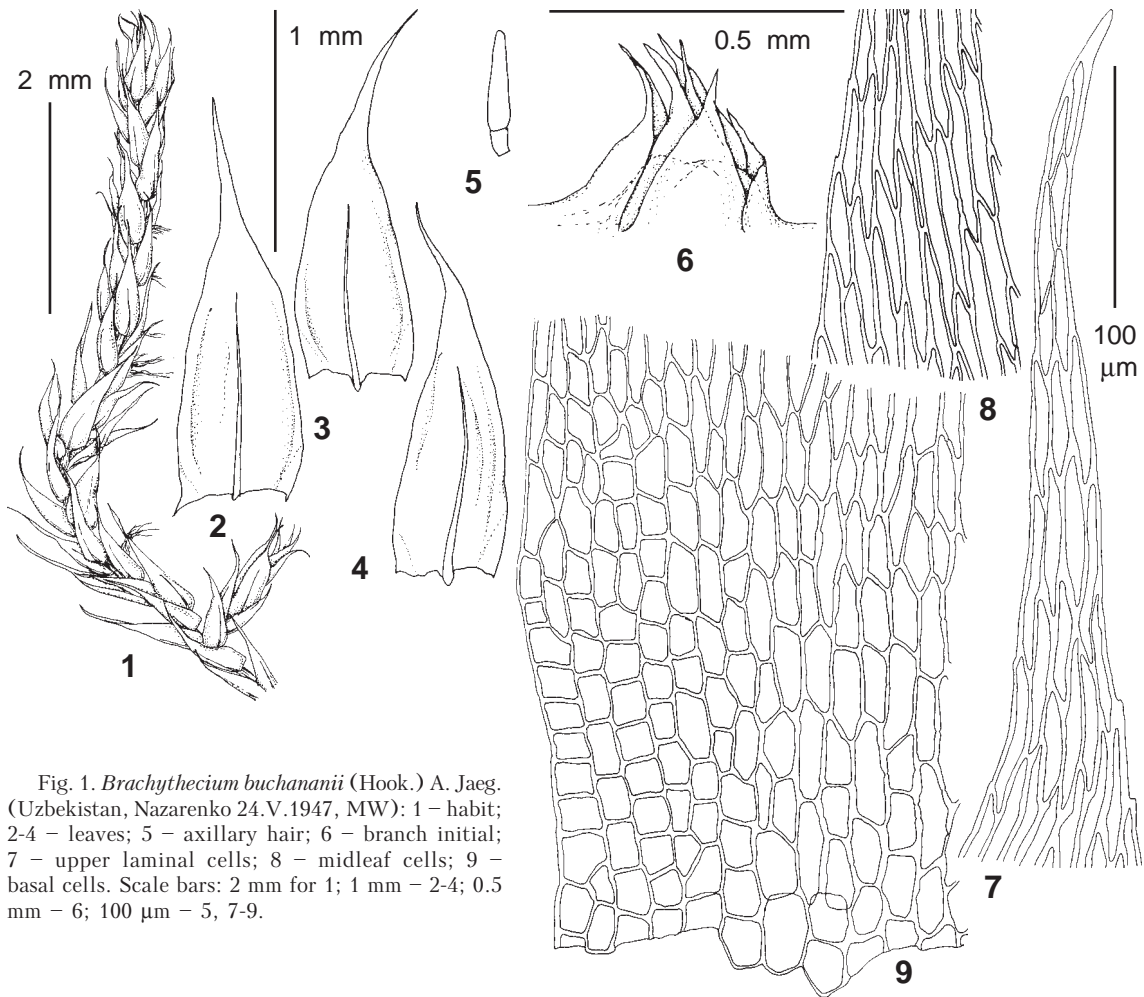


Fig. 1. *Brachythecium buchananii* (Hook.) A. Jaeg. (Uzbekistan, Nazarenko 24.V.1947, MW): 1 – habit; 2-4 – leaves; 5 – axillary hair; 6 – branch initial; 7 – upper laminal cells; 8 – midleaf cells; 9 – basal cells. Scale bars: 2 mm for 1; 1 mm – 2-4; 0.5 mm – 6; 100 µm – 5, 7-9.

stem. Another characteristic of *B. buchananii* is (3-)2-celled axillary hairs with upper cell gradually tapered to its distal end vs. (2-)3-celled hair in *Sciurohypnum plumosum* with more or less bluntly ended upper cell. *Brachythecium buchananii* differs from other species of *Brachythecium* primarily by its small size, and from species of *B. salebrosum*

s. l. also by the subentire (not serrulate, especially in upper leaf) leaf margin.

#### ACKNOWLEDGEMENTS

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