

A new locality of glacial relic moss species *Pseudobryum cinclidioides* in the Tatra Mts., Slovakia

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ABSTRACT: The authors collected the glacial relic moss *Pseudobryum cinclidioides* in the poor fen at Uhliščatka National Nature Reserve in the Tatra Mts. This is the second reliably documented location of this moss species in Slovakia. The phytocoenological features are given.

KEYWORDS: *Pseudobryum cinclidioides*, glacial relic, moss, Tatra Mts.

According to HERZOG (1926), SZAFRAN (1948), KUC (1956) and other bryologists *Pseudobryum cinclidioides* (HUEBENER) T. J. KOP. (family Mniaceae) belongs to the group of glacial relic moss species. It forms bright green patches or deep tufts with brownish tomentum below, similar to species of the genus *Rhizomnium* (Fig. 1).

The moss occurs in Central and Northern Europe, Siberia, Mongolia, Kamtschatka, (MÖNKEMEYER 1927; SMITH 1978), Central Asia and the southern part of Lake Baikal (SOLDÁN & PUJMANOVÁ 1988).

ŠMARDA (1960, 1961) reported two localities in the West Tatra Mts. (Tomanova dolina valley, Tichá dolina valley), the records are based on misidentified specimens (see specimens Nr. 218572, 218574, 218582 and 359985 stored in the Moravian Museum in Brno, Czech Republic, est *Rhizomnium magnifolium*). The same author (ŠMARDA 1954) collected the moss in fen alder wood in the Bor Nature Reserve near Podspády, Podtatranská brázda furrow. Despite an extensive search, *Pseudobryum cinclidioides* could not be refound in this locality and the species has probably declined.

In Eastern Slovakia, in the Bahno Nature Reserve (Bukovské vrchy hills), the moss was recorded by HADAČ & TERRAY (1989) and by SOLDÁN (ANONYMUS 1992). We have confirmed this record; the moss is growing in a fen alder wood. The species was reported as abundant, but we only found a small population on the forest floor.

In the Uhlišťatková National Nature Reserve in the Tatra Mts, *Pseudobryum cinclidioides* occurs in large quantity. The moss thrives in a small poor fen, approximately 7 m in diameter in a forest enclave, where it forms luxuriant carpets covering nearly the whole fen.

Relevés

Relevé 1

Locality: Uhlišťatková National Nature Reserve, The High Tatra Mts., coordinates E 20°06'01", N 49°06'31", 1095 m asl., area 12 m², plane, total cover 100%, E₁ 90%, E₀ 100%, water table + 7 cm, September 3, 2001.

E₁:

Agrostis stolonifera 2b, *Epilobium palustre* 2b, *Myosotis scorpioides* 2b, *Galium palustre* 1, *Carex canescens* +, *Crepis paludosa* +,

E₀:

Pseudobryum cinclidioides 4, *Sphagnum squarrosum* 2b, *Calliergon cordifolium* 2a, *Philonotis caespitosa* 1, *Bryum weigelii* +, *Chiloscyphus polyanthos*.

Relevé 2

Locality: As in Relevé 1, area 8 m², plane, total cover 100%, E₁ 90%, E₀ 100%, water table + 7 cm, September 3, 2001.

E₁:

Agrostis stolonifera 2b, *Carex rostrata* 2b, *Epilobium palustre* 2a, *Myosotis scorpioides* 2a, *Calamagrostis canescens* 1, *Carex canescens* 1, *Ranunculus flamula* 1, *Galium palustre* 1, *Carex nigra* +, *Crepis paludosa* +,

E₀:

Pseudobryum cinclidioides 4, *Sphagnum russowii* 2a, *S. squarrosum* 2m, *S. fallax* 2m, *Calliergon giganteum* 1, *C. cordifolium* +, *C. stramineum* +, *Plagiomnium elatum* +.

The moss is red-listed and noted as critically endangered in the Red list of bryophytes of Slovakia (December 2001) (KUBINSKÁ, JANOVICOVÁ & ŠOLTÉS 2001). The other red-listed species are *Bryum weigellii* (NT), *Calliergon giganteum* (NT), *Philonotis caespitosa* (EN). The nomenclature of bryophytes follows KUBINSKÁ & JANOVICOVÁ (1998), MARHOLD (1998) for vascular plants. The phytosociological relevés were recorded according to the BRAUN-BLANQUET approach (WESTHOF & VAN DER MAAREL 1973), the nine-grade cover scale (r, +, 1, 2m, 2a, 2b, 3, 4, 5), which enables transformation for numerical processing, was used.

All the specimens are stored in the Herbarium of the Museum of Tatra National Park in Tatranská Lomnica, Slovakia. The collection date is the same as the date of relevés.

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Fig.1. *Pseudobryum cinclidioides*