

## Three new species for the bryophyte flora of Bulgaria

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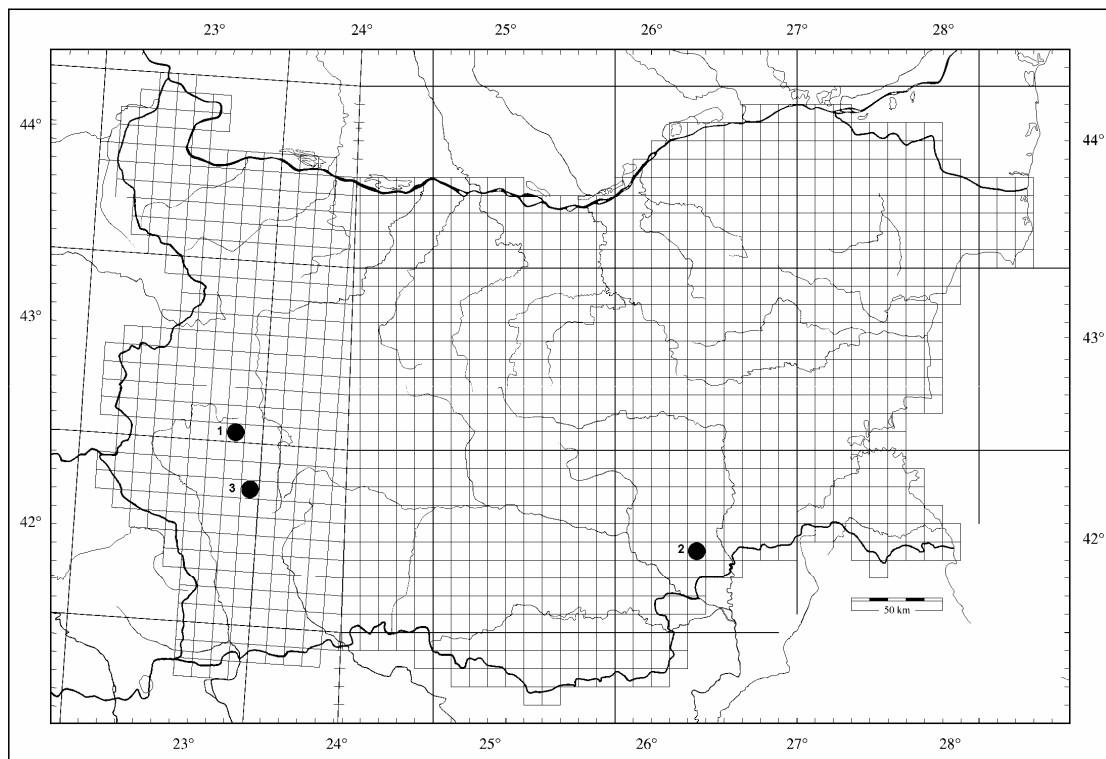
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Received: March 07, 2005 ▷ Accepted: March 12, 2005

**Abstract.** *Sphagnum fimbriatum*, *Dicranoweisia cirrata* and *Drepanocladus longifolius*, are reported for the first time for the bryophyte flora of Bulgaria.

**Key words:** Bulgaria, bryophytes, mosses, new species

Three moss species new for Bulgaria were found during field trips in the period 2000–2004. Location and habitat description for each species are given below. The position of localities is shown on Fig.1. Voucher specimens are deposited in SOM-B.



**Fig. 1.** Map of Bulgaria showing the locations of three new for Bulgaria moss species.  
1, *Sphagnum fimbriatum* (Mt Vitosha); 2, *Dicranoweisia cirrata* (Mt Sakar); 3, *Drepanocladus longifolius* (Rila Mts).

***Sphagnum fimbriatum* Wilson**

Mt Vitosha: between the villages Yarlovo and Chuipetlovo, at the periphery of a small spring fen at the edge of a beech forest along the road, at about 2 km of the Strouma River valley in the southern foothills of the mt, 1250 m, 12.07.2004, FN-80, 42°30' N, 23°14' E, coll. Rayna Natcheva, SOM-B 8381.

The species formed pure cushions or was associated with *Polytrichum commune*, and rarely with *Sphagnum squarrosum*. The plants were richly fertile. The population covered an area of about 10 m<sup>2</sup>. Despite the thorough search in the vicinities, no other populations were found. It is possible, however, that *S. fimbriatum* occurs in other similar habitats in Bulgarian mountains, especially where the beach belt is well developed on acidic bedrock, such as Vitosha Mt, Western Stara planina Mt, Sredna gora Mt. This is especially likely given the high dispersal ability of *Sphagnum* species via spores and high fertility of the bisexual *S. fimbriatum*. It is a boreal species and is common throughout most of Europe but more abundant in the lowlands (Daniels & Eddy 1990). The species is known from the northern and northwestern part of the Balkan Peninsula: Romania, Slovenia, Croatia, Bosnia and Herzegovina (Düll 1984; Düll & al. 1999). The new location in Bulgaria is by far its southernmost locality in Europe.

***Dicranoweisia cirrata* (Hedw.) Lindb.**

Toundzha Hilly Country: Sakar Mt., on the bark of several oak-trees (*Quercus frainetto*) on the western slope of the peak Dervishka Mogila, 410 m, 15.03.2004, MG-44, 41°59' N, 26°21' E, coll. Rayna Natcheva, SOM-B 8456.

No fertile plants were observed but gemmae were abundantly present. It is most probably overlooked in the field due to its small size and resemblance to other more common epiphytic mosses. The bryophyte flora of Sakar Mt. and of Southeastern Bulgaria is poorly known and other localities of this species are likely to be found.

The species occurs in most countries of the Balkan Peninsula: Crete, Greece, Romania, Croatia, Bosnia and Herzegovina, Serbia (Düll 1984; Düll & al. 1999).

***Drepanocladus longifolius* (Mitt.) Par.**

[= *D. capillifolius* (Warnst.) Warnst.].

Rila Mts: close to the tourist house Ivan Vazov, 2210 m, 2.08.2000, FM-97, coll. Rayna Natcheva, SOM-B 8401.

It was growing in a wet depression in a moderately rich fen and around the small streams that drained the fen. The species was mostly represented by scattered sterile shoots associated with *Sphagnum platyphyllum* and *Warnstorfia sarmen-tosa*. This species is rather conspicuous within the genus *Drepanocladus* with its excurrent leaf costa. Therefore, it is probably overlooked in our flora due to its general rarity. Furthermore, the species is unisexual and rarely produces sporophytes thus making long-distance dispersal and recolonization unlikely. Further searches are needed to clarify its distribution and threat status.

*Drepanocladus longifolius* is a boreal species. On the Balkan Peninsula it is found only in Romania (Düll 1984).

**Acknowledgements:** This report was partly financed by the project *Red Lists of vascular plants and fungi with application of the IUCN Criteria*.

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