

# OVERVIEW OF BRYOPHYTA RESERVES ZASAVICA

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## INTRODUCTION

The researched area in phytogeographical terms belongs to the Pannonian province (connections *Alno-Quercion roboris* Ht. (1937) 1938 and *Quercion pubescentis-petraeae* No.-Bl. 1931) within the Central European-Balkan-Illyrian subregion of the Central European region with pronounced influences of the western Moesian province (connections *Quercion frainetto* Ht.1954 and *Quercion petraeae-cerris* (Lakušić, 1976) Lakušić & Jovanović, 1980) of the Central European region, the Pannonian province of the Pontic-South Siberian region and to a lesser extent the Illyrian province of the Central European region (Stevanović et.al, 1999; Gajić, 1984). In the investigated area, mosses inhabit various terrestrial and aquatic habitats (tree bark, stumps, felled trees, land, concrete slabs, coastal parts of the main stream and surrounding ephemeral waters as well as marshes after water withdrawal). Zasavica is a wetland-peat complex which, since 1997, has been placed under protection as a Special Nature Reserve with a total area of over 3400 ha, where 331.64 ha of forest land is located. The aim of this paper is to show the total moss diversity of the Zasavica reserve.

## METHODOLOGY

Implies the collection of data published so far on the bryophytes of the reserve, to which the list has been added and the species whose findings have not been published so far. Determination of aquatic species is carried out through: Özenoğlu, H., Kirmaci, M., Kiremit, F., F., (2019).

## RESULTS WITH DISCUSSION

So far, a total of 49 species of mosses have been recorded in the area of SRP Zasavica, of which 46 species are terrestrial and 3 species are aquatic (one floating, submerged and semi-aquatic).

The first detailed data on the bryoflora of the reserve are given by Grdović, S., Blaženčić, Ž., (2001), who list 43 terrestrial moss species.

Stanković, M., (2006) supplements the list with two aquatic species of mosses (*Riccia fluitans* and *Ricciocarpus natans*).

Perić, R., (2012) adds one new terrestrial moss species (*Marchantia polymorpha*) to the list of reserves.

Dželatović, et.al., (2019) adds two species (*Anomodon viticulosus* and *Eurhynchium hians*) to the list of moss species in the reserve, which are not on the list of mosses that Pantović, et.al., (2020) provide for Serbia.

In the autumn of 2019, a semi-aquatic species *Riccia scorocarpa* nova was found in the swamp of the Valjevac pasture floodplain for the list of bryoflora of Zasavica (unpublished data).

For two of the three aquatic mosses according to Pantović, et.al., (2020) there are data for Northwestern Serbia, which includes the Zasavica reserve, for the species *Riccia fluitans* there are data from before 1990 and for the species *Riccia scorocarpa* there are data after 1990. while the species *Ricciocarpus natans* is not mentioned by the same authors for this part of Serbia, also for the same species in Serbia Sabovljević, M., Natcheva, R., (2006) states that there is data without a precise locality.

## Conclusion

So far, research on the bryophytes of Zasavica has recorded a total of 49 species of mosses, which is 11.47% of the total diversity of bryophytes in Serbia.

Of the endangered species according to the IUCN criteria, there are 5 species, one in the category of endangered (EN) and insufficient data (DD) and three in the category of dependent on protection (LR).

The species *Ricciocarpus natans* is a new species for Northwestern Serbia and Mačva, while the species *Riccia scorocarpa* is new for the Mačva region and this part of Posavina.

	
<i>Riccia fluitans</i>	<i>Ricciocarpus natans</i>
	
<i>Marchantia polymorpha</i>	<i>Riccia scorocarpa</i>
	
<i>Anomodon viticulosus</i>	<i>Eurhynchium hians</i>

## MOSS IN THE ZASAVICA RESERVE ON THE RED LIST OF MOSS AND LIVING MACHINES OF SERBIA AND MONTENEGRO WITH THE STATUS OF ENDANGERMENT

		
<i>Brachythecium oxycladum</i>	<i>Isopterygiopsis pulchella</i>	<i>Syntrichia papillosa</i>
Vulnerability category: Near Threatened (LRnt)		
		
<i>Callicladium haldanianum</i>	<i>Hypnum fertile</i>	
Vulnerability category: endangered species (EN)	Vulnerability category: Data Deficient (DD)	