



Conference Abstract

# New data on the distribution of *Menyanthes trifoliata*, *Carex limosa* and *Comarum palustre* in "Torfeno Branishte" Reserve, "Vitosha" Natural Park, Bulgaria

Svetlana Bancheva<sup>‡</sup>, Rayna Natcheva<sup>‡</sup>, Vladimir Vladimirov<sup>‡</sup>, Atanas Tanev<sup>‡</sup>, Galin Gospodinov<sup>‡</sup>

<sup>‡</sup> Institute of Biodiversity and Ecosystem Research, Sofia, Bulgaria

Corresponding author: Svetlana Bancheva ([sbancheva@yahoo.com](mailto:sbancheva@yahoo.com))

Received: 15 Sep 2019 | Published: 16 Sep 2019

Citation: Bancheva S, Natcheva R, Vladimirov V, Tanev A, Gospodinov G (2019) New data on the distribution of *Menyanthes trifoliata*, *Carex limosa* and *Comarum palustre* in "Torfeno Branishte" Reserve, "Vitosha" Natural Park, Bulgaria. ARPHA Conference Abstracts 2: e46606. <https://doi.org/10.3897/aca.2.e46606>

## Abstract

"Torfeno Branishte" is a Reserve located in "Vitosha" Natural Park, Bulgaria. It was established in 1935 to preserve the peat communities in the high parts of Vitosha Mountain in their natural state. The reserve comprises Bulgaria's most significant complex of high mountain peatlands. Their age is estimated to be over 1500 years old, and the thickness of the peat cover accumulated during that time can reach up to 2 meters in depth. Their current area is 785.3 hectares. Plant communities dominated or participated by *Sphagnum* L. and/or other peat-forming mosses are very sensitive to climate change and anthropogenic impact. They often house a large number of plant species with conservation significance. The purpose of this study is to provide new data on the distribution of three extremely rare and endangered plant species. During a field study in "Vitosha" Natural Park related to the selection of sites for monitoring and installation of permanent monitoring sites for climate change monitoring in nature reserve "Torfeno Branishte", two species were found that were considered extinct from the territory of the mountain – *Menyanthes trifoliata* L. and *Carex limosa* L. Both species are protected by the Biological Diversity Act and are included in the Red Data Book of Republic of Bulgaria (Peev 2015). Prior to this study, for decades they have been purposefully searched for with no positive result. As a

result of this study, the number and population sizes of *M. trifoliata* and *C. limosa* were determined. In addition, the populations of *Comarum palustre* L. and *Carex limosa* L. that occur at the same location were found to be much larger than previously known. Population sizes of the three species are low, but still viable. The major threat to the well-being of these species is the drought.

## Keywords

Plant species with conservation significance, Torfeno Branishte, Vitosha Natural Park

## Presenting author

Svetlana Bancheva

## Presented at

V<sup>th</sup> International Congress on Biodiversity: „Taxonomy, Speciation and Euro-Mediterranean Biodiversity“

## Acknowledgements

This work has been carried out in the framework of the National Science Program "Environmental Protection and Reduction of Risks of Adverse Events and Natural Disasters", Resolution № 577/17.08.2018 and supported by the Ministry of Education and Science of Bulgaria (Agreement № ДО-230/06-12-2018).

## References

- Peev D (2015) Red data book of the republic of Bulgaria. Vol. 1. plants and fungi. BAS, MOEW, Sofia, 889 pp.