

Faculty of Biology, University of Belgrade  
Serbian Academy of Sciences and Arts



5th  
Balkan  
Botanical  
Congress

# **BOOK OF ABSTRACTS**

September, 07-11 2009  
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# 5<sup>th</sup> Balkan Botanical Congress

## Book of Abstracts

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"PLANT LIFE OF THE BALKAN PENINSULA"

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The analysis showed that niche position of bryophytes in the study area is determined mainly by the lime concentration of the geological substrate and by the altitude. These variables follow also clear spatial pattern and thus a spatial differentiation of bryophyte flora was found, following west to east and north to south gradients.

Furthermore, on the basis of OMI results six groups of collecting sites and six groups of taxa were distinguished. These groups have different geographical distribution as well as different ecological conditions or preferences concerning substrate stability, river order (continuous or constant water flow), lime concentration of the substrate, altitude and light availability (tree canopy that provide shade or not).

11 Sept. 14:30-16:00, POSTER HALL Poster 4\_CRB\_P\_05.

### BRYOPHYTE ECOLOGY IN URBAN HABITATS OF THE BELGRADE METROPOLITAN AREA (SERBIA)

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An ecological and distributional approach of the urban bryoflora of the city of Belgrade has been made. Many different parameters and indices have been analyzed with aim to infer the significance and get better idea on the bryophytes within the urban areas. Mosses significantly dominate over liverwort species in urban conditions, and the most common life forms are turfs and rough mats. Small spores (less than 20µm) are abundant if sex reproduction is present among mosses. Urban environment conditions decrease sex and increase vegetative reproductive effort by producing many kind of vegetative propagules in the most of the species recorded. As expected, due to geographical position and climate, dominant distribution type within urban bryophyte flora of Belgrade is temperate.

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### EX SITU CONSERVATION OF BRYOPHYTES AND BRYOPHYTE GERMAPLASM POOL

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Bryophytes (i.e. mosses, liverworts and hornworts) are the second biggest group of the land plants. However, due to their tiny size and low economic values, they remain out of plant scientists and conservationists interest. With aim to develop better action plans for protection and conservation of these plants, we established germaplasm collection and propagation pool for 42 species of bryophytes from wide of Europe and Macaronesia. Among these species 4 are of wide European conservation interests: *Anoetangium hornschuchianum* (CR), *Bartramia subulata* (EN), *Bruchia vogesiaca* (VU), *Ditrichum cornubicum* (EN) and 6 are regionally endangered, endemic or rare species i.e. *Breutelia azorica*, *Campylopus oerstedianus*, *Cyrtomnium hymenophylloides*, *Ditrichum plumbicola*, *Oreas martiana* and *Sphagnum palustre*. Besides, counterparts of some other rare and endangered species are used as suitable model systems to test *in vitro* production and propagation of endangered counterparts/species: *Dicranum scoparium* / *D. viride* / *D. transsylvanicum*, *Cinclidotus aquaticus* / *C. confertus*, *Entostodon obtusifolius* / *E. hungaricus*, *Herzogiella seligeri* / *H. turfacea*, *Plagiomnium rostratum* / *P. cuspidatum* / *P. drummondii* and others. Germaplasm collection is used for active and passive species conservation and also as valuable bryophyte gene pool and reservoir for other fundamental and applied investigation.

11 Sept. 14:30-16:00, POSTER HALL Poster 4\_CRB\_P\_07.

### AN INSIGHT INTO CHEMO-TAXONOMY OF EURHYNCHIUM PRAELONGUM (HEDW.) SCHIMP. AND EURHYNCHIUM STOKESII (TURN.) SCHIMP.

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*Eurhynchium stokesii* (Turn.) Schimp. is usually considered as a synonym or variety of *Eurhynchium praelongum* (Hedw.) Schimp. (syn. *Kindbergia praelonga* (Hedw.) Ochyra). With aim to search relationship of these two entities chemical analyses were performed on the two populations growing in the similar site conditions (Bonn and Cologne surrounding, Germany). Significant differentiations in the presence of fatty acids were found. In both species palmitic acid methyl ester was the most represented (88.58% in *E. praelongum* and 25.04% in *E. stokesii*) besides common stearic acid methyl ester