



Department of Biology and Ecology,  
Faculty of Sciences and Mathematics  
University of Niš  
Institute for Nature Conservation of Serbia

# ABSTRACTS APSTRAKTI

**14<sup>th</sup> Symposium  
on the Flora of Southeastern Serbia  
and Neighboring Regions**

**Kladovo 26 to 29 June 2022**

**14. Simpozijum  
o flori jugoistočne Srbije  
i susednih regiona**

**Kladovo 26. do 29. jun 2022.**

**Niš-Belgrade, 2022**

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Abstracts

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**Genetics, Selection and Biotechnology**

## Micropropagation of *Clinopodium thymifolium* (Scop.) Kuntze (Lamiaceae)

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*Clinopodium thymifolium* (Scop.) Kuntze (syn. *Micromeria thymifolia* (Scop.) Fritsch) is a Balkan endemic species, traditionally used as a condiment and medicinal plant in the Mediterranean area. *Clinopodium* species were shown to produce considerable quantities (> 0.5%) of essential oils. The essential oil of wild-growing *C. thymifolium* possesses high antimicrobial activity. One alternative for the production of commercially important plant-derived metabolites, especially of rare plant genotypes, is *in vitro* plant tissue culture, given that the metabolic potential of *in vitro* shoot cultures can be manipulated by varying *in vitro* culture conditions. In view of the potential pharmacological and commercial value of *C. thymifolium*, the present study was initiated to propagate this aromatic plant species with the aim to increase the accumulation of biomass and the production of secondary metabolites. Shoots of wild-growing plants, dissected into one-node stem segments bearing two axillary buds, were used to establish *in vitro* cultures. Shoot multiplication was carried out on basal nutritional medium and on medium supplemented with various plant growth regulators at different concentrations. Nodal segments developed axillary shoots, and were successfully propagated on basal medium, whereas tested plant growth regulators differently affected their multiplication and biomass production.

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