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

13th Symposium on the Flora of Southeastern Serbia and Neighboring Regions

Stara planina Mt. 20 to 23 June 2019

13. Simpozijum o flori jugoistočne Srbije i susednih regiona

Stara planina 20. do 23. jun 2019.

ABSTRACTS
APSTRAKTI

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Abstracts

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Assessment of polyphenol content and *in vitro* antioxidant potential of wild growing and cultured raspberry leaf

Pavlović, D.R.[1], Vukelić-Nikolić, V.[2], Marčetić, M.[3], Kitić, D.[1], Kostić, M.[1], Milutinović, M.[1], Miladinović, B.[1]

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Rubus idaeus L., folium (raspberry leaf) is according to EMA/HMPC monograph indicated as traditional herbal medicinal product for: the symptomatic relief of minor spasm associated with menstrual periods, the symptomatic treatment of mild inflammation in the mouth or throat and the symptomatic treatment of mild diarrhea. The aim of this work was quantitative determination of phenolic compounds (namely: total polyphenols, tannins, flavonoids, arbutin and hydroquinone) and antioxidant capacity of the different leaves extracts of wild and cultivated *Rubus ideus*. Total polyphenols, tannins and flavonoids were determined spectrophotometrically, HPLC method was employed for quantification of arbutin and hydroquinone. DPPH test was used for fast antioxidant screening. Arbutin and hydroquinone were absent in all samples despite some literature date on arbutin presence in *Rubus idaeus*. Our phytochemical study showed that raspberry leaves extracts contain significant amounts of polyphenolic compounds, which could be useful in its quality estimation. Cultured raspberry leaf extracts seem to be reacher source of this secondary metabolites while hydromethanolic extracts of wild growing plant material exhibited the strongest antioxidant activity. Polyphenolic content and demonstrated activity could, at least in part, explain pharmacological effects of raspberry leaves.

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