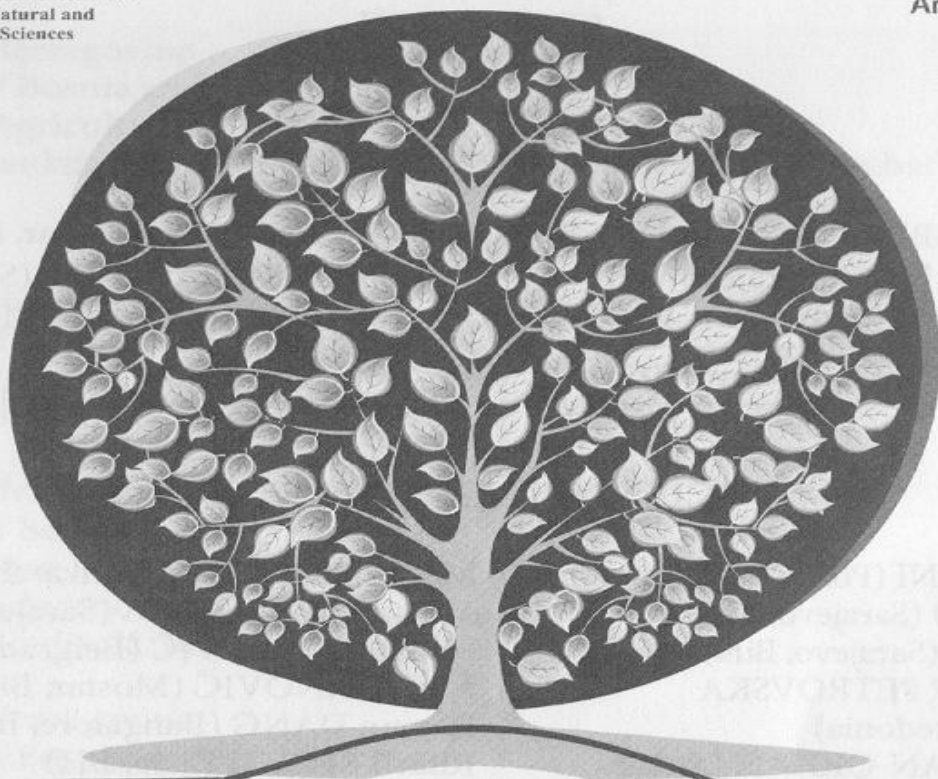




ACADEMY OF SCIENCES AND ARTS
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Department of Natural and
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Medicinal
Aromatic P
Sarajevo



International Conference

Medicinal and Aromatic
Plants in Generating of New Values
in 21st Century



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„MEDICINAL AND AROMATIC PLANTS IN GENERATING OF NEW
VALUES IN 21ST CENTURY”

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POPULATION VARIABILITY IN SECONDARY
METABOLITES CONTENT OF *TEUCRIUM CHAMAEDRYIS*
L. FROM LOCALITIES IN SERBIA AND BOSNIA AND
HERZEGOVINA

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Wall germander, *Teucrium chamaedrys* L. – Lamiaceae is a perennial herbaceous plant with half-ligneous and shrub-like low stem up to 30 cm high. The plant inhabits rocky limestone areas, dry mountain meadows and pastures, the edge of the sparse oak and pine forest up to 1000 meters above sea level in Central Europe, Mediterranean region and Western Asia. *T. montanum* is medicinal species of *Teucrium* genus and used in the treatment of digestive disorders, abscesses, gout and conjunctivitis and in stimulation of fat and cellulite decomposition. Total phenolic content and flavonoid concentrations in acetone extracts obtained from *T. chamaedrys* of two natural populations from Serbia (Trgovište, south Serbia and Paraćin, central Serbia) and one from Bosnia and Herzegovina (Gornji Vakuf, central BiH) were investigated and compared. The above-ground parts of plants were collected during the flowering phase and the acetone extracts were prepared. The total phenolic content of the extracts was determined using Folin-Ciocalteu reagent and expressed as gallic acid equivalent - mg of GA/g of extract. The obtained values varied between 70.58 mg GA/g and 170.52 mg GA/g of extract. The concentration of flavonoids was determined using AlCl₃ and expressed as rutin equivalent - mg of Ru/g of extract. The obtained values for flavonoid concentrations varied between 76.85 mg Ru/g and 87.06 mg Ru/g of extract. The results obtained in the analysis point out that the concentration of secondary metabolites depend on the ecological properties of the plant habitats.

Keywords: *Teucrium chamaedrys* L., phenolic content, flavonoids

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