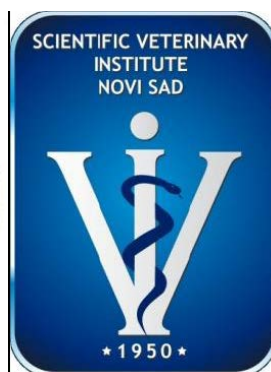


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MEDICINE OF SERBIA**

**SCIENTIFIC VETERINARY INSTITUTE „NOVI  
SAD“**

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**DIVERSITY AND SEX INDICES OF HARD TICKS (Acari: Ixododae) IN URBAN AND SUBURBAN AREAS**

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**Abstract:** All ixodid ticks are habitat generalist and their presence at certain habitats depends on the environmental microclimatic features and the presence of suitable hosts. Ticks are intensively studied because of their permanent presence in the urban and suburban areas as they are proved vectors of numerous and severe pathogens important for human and veterinary medicine. The species diversity and abundance of ixodid ticks were studied during 2015 at 20 localities in Serbia, from April to September, at four types of the urban and suburban areas: parks, urban forests, green areas around schools and kindergartens and river and lake promenade banks. The obtained results were analyzed using the Shannon-Wiener index and sex index. Seven tick species were identified: *Ixodes ricinus*, *Dermacentor marginatus*, *D. reticulatus*, *Haemaphysalis concinna*, *H. punctata*, *Rhipicephalus sanguineus* and *R. bursa*. *I. ricinus* was the dominant species at all prospected localities. *D. marginatus* was the most dominant species at urban forests. *D. reticulatus* and *H. punctata* were sampled only at parks and urban forests, *H. concinna* and *R. bursa* at urban forests and *R. sanguineus* only at parks. The highest values of the Shannon-Wiener diversity index were obtained in urban forests, such as Poloj (1.004) and Titel (1.000). Females of all identified tick species were more numerous comparing to males with the highest value of sex index (0.90) obtained for females of *D. marginatus* at green areas around schools and kindergartens. The lowest value of sex index was calculated for *R. bursa* (0.33) at urban forests. The obtained results indicate that continuous monitoring and mapping the habitats with high tick abundance is economically justified and necessary, not only for the health safety of human and animals, but also their daily activities as well as the overall environmental protection.

**Key words:** *ixodid ticks, diversity index, sex index, urban areas*

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