Preliminary results on Diplopoda (Arthropoda, Myriapoda) diversity in Special Nature Reserve "Zasavica"

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The Special Nature Reserve "Zasavica" is under the protection of the state since 1997, and is a natural resource of the first category. Human influence on this area has been present for thousands of years, and the development of the transport network has allowed the mixing of different elements of fauna. Millipedes, as one of the most diverse groups of terrestrial arthropods, are neglected in field of research; only a few people in world are engaged in their study. Diplopods are organisms with low mobility and weak dispersion ability, and as such can provide us insight to a wider picture of the biogeographical characteristics and geological history of the investigated area. In an ecological sense, millipedes are decomposers of the first class, representing a vital factor of every food chain, and as such they are valuable indicators of proper condition and unharmed flow of natural processes within a habitat. Based on so far processed material of millipedes from "Zasavica", it has been identified 14 species, from 12 genera, 7 families and 6 orders – Polyxenida, Glomerida, Callipodida, Chordeumatida, Julida and Polydesmida. Current status of this group in "Zasavica" accounts to approximately 15% of total diversity of this group of arthropods on territory of Serbia, but there is a lot of material that waits to be processed, so we expect presence of few more species, genera and families. Based on forms of geographical distribution of registered species of Diplopoda from "Zasavica", it is clear that this protected area dominantly represents a mixture of elements of European, central-east European and central-east-south European fauna. Such distribution shows that location of SNR "Zasavica", on the extreme southern edge of the Pannonian Basin, is still under dominant influence of Central-European diplopod fauna, but it also represents the northernmost point of areal of some Balkan species, more typical for the southern regions.

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