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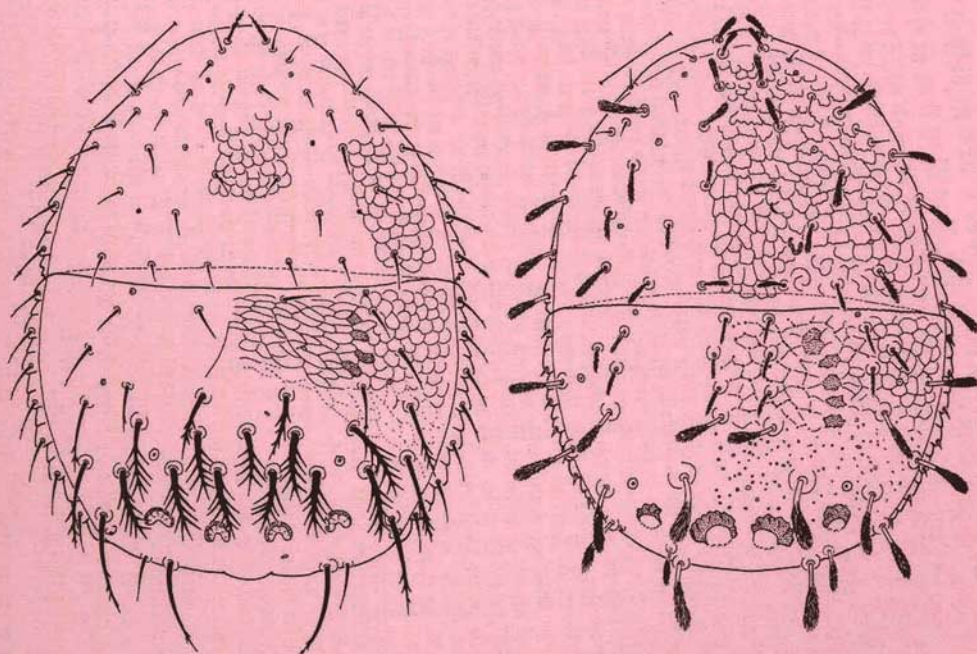
Peter MAŠÁN & Peter FENĎA

Zerconid mites of Slovakia

(Acari, Mesostigmata, Zerconidae)

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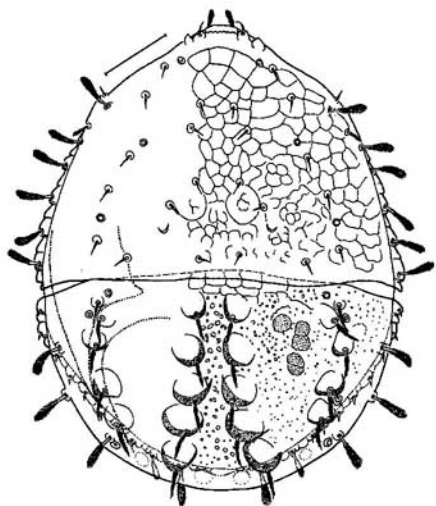
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Institute of Zoology  
Slovak Academy of Sciences  
Bratislava, 2004



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# Zerconid mites of Slovakia (Acari, Mesostigmata, Zerconidae)

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**Abstract:** A total of 4 genera (viz. *Mixozercon* HALAŠKOVÁ, 1963; *Parazercon* TRÄGÅRDH, 1931; *Prozercon* SELLNICK, 1943 and *Zercon* C. L. KOCH, 1836) and 43 species of the family Zerconidae (Acari, Mesostigmata) are reliably recognised in Slovakia. Except the genera *Mixozercon* and *Parazercon*, represented by single species, the genera *Prozercon* (11 spp.) and *Zercon* (27 spp.) with a number of recognised species belong to larger genera in Slovakia.

On the basis of a material consisting of 20,303 individuals obtained from 604 samples taken in 67 geomorphological units of Slovakia, 8 new species (*Prozercon carpathofimbriatus* sp. n., *Prozercon verruciger* sp. n., *Zercon armiger* sp. n., *Zercon gregalis* sp. n., *Zercon horsaensis* sp. n., *Zercon orszaghorum* sp. n., *Zercon slovacus* sp. n. and *Zercon tematinensis* sp. n.) are described and 13 other species (*Prozercon carpathicus*, *Prozercon fimbriatus*, *Prozercon lutulentus*, *Prozercon similis*, *Zercon gurensis*, *Zercon joduthae*, *Zercon latissimus*, *Zercon moravicus*, *Zercon montigenus*, *Zercon pinicola*, *Zercon serenus*, *Zercon tatrensis* and *Zercon vacuus*) are reported from Slovakia for the first time.

The following new synonymies are proposed: *Prozercon ukrainicus* BALAN, 1991 is here regarded as a synonym of *Prozercon carsticus* HALAŠKOVÁ, 1963 and *Zercon polonicus* BŁASZAK, 1970, as a variation *Zercon peltatus* var. *polonicus* comb. nov., as a synonym of *Zercon peltatus* C. L. KOCH, 1836. *Polozzercon* BŁASZAK, 1979 is repeatedly included in synonymy with *Zercon* C. L. KOCH, 1836. Short taxonomic remarks are given for the species of dubious taxonomic status.

Nine species, *Prozercon halaskovae* PETROVA, 1977; *Zercon alpestris* MIHELČIČ, 1964; *Zercon anomalus* WILLMANN, 1953; *Zercon perforatulus* BERLESE, 1904; *Zercon schweizeri* SELLNICK, 1944; *Zercon similis* SELLNICK, 1958; *Zercon spatulatus* C. L. KOCH, 1839; *Zercon tuberosus* WILLMANN, 1936 and *Zercon vagabundus* KARG, 1971 have erroneously been reported from Slovakia, and are known from adjacent countries or remote parts of Europe.

The paper includes identification keys (based on female characters) to all species of Zerconidae recorded in Slovakia. The keys are illustrated by original drawings of all species and variations studied. Altogether, there are 57 figures and 50 plates in this paper.

The recorded species are redescribed and characterized on the basis of their external morphology, geographic distribution and ecological requirements in terms of micro- and habitat preference and vertical distribution. The chorological features of Slovakian zerconids are analyzed.

Most species are silvicolous and occur exclusively in woodlands. As to ecological requirements, the species occurring in Slovakia can be classified into 7 major groups: 1. stenzonal polypsychrophilous praticoles (4 spp.), 2. mesozonal psychrophilous silvicoles (3 spp.), 3. euryzonal psychrotolerant silvicoles (7 spp.), 4. mesozonal semi-psychrotolerant

silvicoles (6 spp.), 5. stenozonal psychrophobic silvicoles (16 spp.), 6. stenozonal xerotolerant silvi-steppicoles (5 spp.) and 7. stenozonal hygrotolerant silvicoles (2 spp.).

The occurrence of recognised species is presented in grid maps of the Slovakian territory. The distribution analysis is done in detail in view of the regional chorology. According to the features of recent regional distribution areas of individual zerconids, we can establish characteristic groups including species with similar type of regional distribution (regiotypes) in Slovakia as follows: 1. regiotype of ubiquitous species (1 sp.), 2. regiotype of non-specialised silvicoles (2 spp.), 3. regiotype of specialised silvicoles (8 spp.), 4. regiotype of psychrophilous silvicoles (4 spp.), 5. regiotype of silvi-steppicoles (3 spp.), 6. regiotypes of migratory species (15 spp.) and 7. regiotypes of local species (10 spp.).

**Key words:** Acari, mites, Mesostigmata, Zerconidae, taxonomy, ecology, chorology, fauna, Slovakia.

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