



**GASTEROID FUNGI: RECENT TAXONOMIC RESULTS  
FROM THE CARPATHIAN BASIN**

A hazai pöfetegfélék kutatásának legújabb taxonómiai eredményei

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In the last years, comprehensive investigations of the Hungarian epigeous gasteroid fungi have been carried out, which elucidated several issues related to the taxonomy of these groups in the Carpathian Basin. Numerous epigeous gasteroid species from various genera have been collected as the first record not only to Hungary, but also to Europe. Gasteroid genera, e.g. *Bovista*, *Disciseda*, *Geastrum*, *Lycoperdon*, and *Tulostoma* are represented with recently described or potentially new species. The remarkable results of recent molecular phylogenetic analyses focusing on these groups showed that the Pannonian continental steppe region host many novel lineages representing undescribed species. The genus *Tulostoma* is especially diverse in the unique Pannonian sandy steppe area which has been proposed as one of the most favourable habitats for gasteroid fungi in Europe. Since macromorphological and microscopical differences are usually subtle in the genus, species delimitation mainly relies on the multilocus phylogenies. In our work, besides classical morphological methods, multilocus phylogenetic analyses have been used for polyphasic taxonomy and gaining results on the distribution of several gasteroid clades including potentially novel taxa.