



## HOW THREATENED ARE LEPIOTOID FUNGI? LESSONS FOR UPDATING THE HUNGARIAN MACROFUNGAL RED LIST

Mennyire veszélyeztetettek az őzláb- és tarlógombák?  
Tanulságok a hazai nagygomba-vöröslista megújításához

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Lepiotoid macrofungi comprise a morphologically defined group of predominantly saprotrophic agarics, with the best-known genera including *Chlorophyllum*, *Lepiota*, *Leucoagaricus*, *Leucocoprinus* and *Macrolepiota*. Their conservation status remains uncertain, as our knowledge of the ecology and taxonomy of lepiotoid fungi is still incomplete. Further challenges arise because many species are difficult to distinguish from one another, remain insufficiently studied, or are easily overlooked due to their inconspicuous fruit bodies. The existing national macrofungal Red List proposal for Hungary is now almost three decades old and requires revision in light of current taxonomic and distributional knowledge. As a case study for this process, we focused on the lepiotoid fungi and evaluated each species currently known to occur in Hungary individually. In doing so, we incorporated recent taxonomic developments, including species newly recorded from Hungary, such as *Lepiota cystophora*, and reassessed species occurring in Hungary only in anthropogenic habitats, such as greenhouses or flower pots, including *Mystagaricus brunneolilacinus*. We evaluated all known lepiotoid species occurring in Hungary. Of these, 6 species were classified as Endangered (EN), 10 as Vulnerable (VU), 13 as Near Threatened (NT), and 19 as Least Concern (LC). A further 15 species were considered Not Applicable (NA) because of their non-native status. Of the remaining 34 species, 21 were classified as Data Deficient (DD), while 13 were considered Not Evaluated (NE) because of uncertain historical records. The assessment also identified challenges likely to affect revision of the national Red List more broadly, including taxonomic changes, uncertain historical records lacking voucher specimens, and the treatment of species restricted to anthropogenic habitats. Our results provide an updated basis for assessing the conservation status of Hungarian lepiotoid fungi and highlight the need for improved monitoring, standardized data collection, and continued taxonomic revision to support reliable conservation assessments.