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## **Ethnomycological characteristics of fungi uses in the Mazovia region.**

### **Abstract:**

The dissertation presents documentation of traditional knowledge about the uses, ecology and abundance of wild growing fungi in the Mazovia (33,900 km<sup>2</sup>) region of Poland.

The field research, conducted between 2014 – 2018, resulted in the recording of 695 semi-structured interviews among local informants in 38 localities proportionally distributed throughout the Mazovia region. The information acquired covered known species of macromycetes fungi, their local names, useful properties, ecology and changes noted in their abundance. The described species were identified using visual props (illustrated guides and pictorial support), morphological identification of collected voucher specimens, and molecular identification, using the ITS DNA barcode method.

The research enabled the identification of 92 fungi taxa to the species or genus level. Among them were 76 species used for consumption purposes, 21 taxa known as inedible or poisonous and 11 used for non-culinary purposes. Out of 76 identified fruiting bodies of edible fungi species 36 (47%) were identified by the use of ITS DNA barcoding. Eleven of them were determined exclusively by molecular analysis. The mean number of edible taxa listed during a single interview was 9.5. Two new species to the mycobiota of Poland were discovered – *Hydnum elliposporum* Ostrow & Beenken and *Paxillus cuprinus* Jargeat, Gryta, J.-P. Chaumeton & Vizzini. Interaction with people who frequently collected mushrooms enabled us to transcribe folk taxonomy into scientific taxonomic nomenclature and to define changes in local preferences concerning wild edible fungi collection. Collective folk descriptions of fungal ecology consisting of recurring reports on species habitat preferences generally does not diverge from scientific knowledge related to this topic. It not only coincides with general scientific knowledge, but also often exceeds particular scientific descriptions. The acquired information indicates a steady decrease in macrofungal abundance in the Mazovia region, which also coincides with the latest studies and scientific forecasts. The list of fungal taxa known by Mazovian residents is the longest regional list of mushrooms recorded during ethnomycological field research. It places the inhabitants of Mazovia at the top of the currently known mycophilia spectrum. Moreover, it was proven that local knowledge can be applied as a useful tool in mycobiota monitoring, and can be used as a

support for scientific knowledge by indicating the direction of further scientific studies on fungal ecology