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GENERIC CONCEPTS AND TAXONOMIC UNCERTAINTIES IN THE FAMILY MERULIACEAE (POLYPORALES, BASIDIOMYCOTA)

Nemzetség koncepciók és taxonómiai bizonytalanságok a Meruliaceae
családban (Polyporales, Basidiomycota)

Viktor PAPP¹ & Bálint DIMA^{2,3}

¹Department of Botany, Faculty of Horticultural Science, Szent István University, H-1518 Budapest, Hungary; ²Department of Plant Anatomy, Institute of Biology, Eötvös Loránd University, Pázmány Péter sétány 1/c, H-1117 Budapest, Hungary; ³Department of Biosciences, Plant Biology, Viikki Plant Science Centre, University of Helsinki, P.O. Box 65, FI-00014 Helsinki, Finland; e-mail: papp.viktor@kertk.szie.hu; agaricum@gmail.com

The most recent phylogenetic studies demonstrated that the phlebioid clade forms three different lineages, which are accepted as Irpicaceae, Meruliaceae and Phanerochaetaceae in family rank. The family name Meruliaceae (= Climacodontaceae, = Phlebiaceae) was proposed by Petter Adolf Karsten in 1881 and published validly by Carleton Rea in 1922, based on *Merulius* as generic type. The family contains wood-inhabiting white-rot species, which microscopically characterised in general by the monomitic hyphal system with clamp-connections, the smooth, hyaline, thin-walled spores and the presence of cystidia. The annual resupinate basidiocarp form is dominated in the family, with corticioid (e.g. *Lilaceophlebia*), phlebioid (e.g. *Merulius*, *Phlebia* spp.), odontoid (e.g. *Crustodontia*, *Scopuloides*), hidnoid (e.g. *Climacodon*, *Hydnophlebia*, *Mycoacia*, *Mycoaciella*, *Sarcodontia*) or poroid (e.g. *Luteoporia*, *Phlebiporia*) trama. Furthermore, besides the resupinate basidiocarps, the pileate form also occurs in certain poroid genera (e.g. *Aurantipileus*, *Aurantiporus*). Due to the results of the phylogenetic studies on the phlebioid clade, the former generic concepts based on morphological observations had to be revised in some cases. Based on multigene phylogenetic analyses, it seems that certain large genera (e.g. *Ceriporia*, *Ceriporiopsis*, *Phanerochaete* and *Phlebia*) created by morphological observations are polyphyletic and the species classified in these genera can be found in Meruliaceae as well as in other families within the order Polyporales. Therefore, the correct taxonomic status of many species in the phlebioid clade is uncertain and an extensive molecular sampling is necessary to establish sound generic concepts in the Meruliaceae. In this presentation (i) we aimed to discuss the taxonomic uncertainties and unsolved problems in the family Meruliaceae. Furthermore, based on morphological and phylogenetic perspectives (ii) we aimed to investigate the legitimacy of certain genus names, which formerly placed in the Meruliaceae: e.g. *Amaurohydnum*; and in addition (iii) we reported the description of a new polypore genus, typified on *Aurantiporus alborubescens* (\equiv *Phaeolus alborubescens*) evidenced by morphological characteristics and multigene phylogenetic analysis.