

Outlineoffungi.org – Note 923 *Mycena*

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Mycena (Pers.) Roussel

Mycena, typified by *M. galericulata* (Scop.) Gray, is a polyphyletic genus, containing poroid and lamellate mushrooms, predominantly saprobic and distributed worldwide. The genus has 24 names related and several subgeneric classification systems, based on morphological evidence resulting in four subgenera, 58 sections and 10 subsections recorded in [Index fungorum](#). The sections *Amparoina* T. Bau & Q. Na, *Calodontes*, Fr. ex Berk.) Quél., *Fragilipedes* (Fr.) Quél., *Sacchariferae* Kühner ex Singer and *Supinae* Konrad & Maubl. were phylogenetically recognized with base in ITS, LSU and mtSSU sequences (Na & Bau 2019). New species have been described based on the morphology and ITS, LSU, mtSSU, *Tef-1a*, *rpb1* and *rpb2* regions (e.g. Cooper 2014, Perry & Desjardin 2017, Na & Bau 2018, Cortés-Pérez et al. 2019, Chang et al. 2020, Cortés-Pérez et al. 2020, Oliveira et al. 2021, Na et al. 2022, Zhang, et al. 2024). In the NCBI [GenBank](#), 89958 sequences are related to the name *Mycena*, whilst 34 species had their genome sequenced. Research utilizing *Mycena* genomes has offered new insights about the evolution of fungal bioluminescence, as well as understanding its adaptability and lifestyles (Ke et al. 2020, Harder et al. 2024). *Mycena* harbors the most diversity of bioluminescent representatives, with 65 species reported up until now (Lu et al. 2024). The taxonomic placement of *Mycena* is in *Mycenaceae*, *Mycenineae*, *Agaricales*, *Agaricomycetes*, *Agaricomycotina*, and *Basidiomycota*.

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