

Outlineoffungi.org - Note 710 *Calonarius*

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Calonarius Niskanen & Liimat.

To resolve the higher-level classification of *Cortinariaceae*, both targeted capture sequencing and shallow whole genome sequencing were adopted to produce data ([Liimatainen et al. 2022](#)). Based on the phylogenomic analyses of 75 single-copy genes from 19 species and 5-locus analysis (*rpb1*, *rpb2*, *mcm7*, *gpd* and *tef1*) of 245 species, a classification of *Cortinariaceae* with ten genera including seven new genera was established ([Liimatainen et al. 2022](#)). *Calonarius* is one of those new genera. *Calonarius* accommodates three subgenera, viz., *Calonarius*, *Calochroi* and *Fulvi* ([Liimatainen et al. 2022](#)). The type species is *Calonarius typicus* (Liimat.) Niskanen. The characteristics of this genus are medium- to large-sized, pileocarpic, agaricoid (phlegmacioid) or sometimes sequestrate, often brightly coloured basidiomata with a more or less, usually distinctly marginated bulb at the base of the stipe ([Liimatainen et al. 2022](#)). Amygdaloid to citriform coarsely verrucose basidiospores and simplex pileipellis are also typical. Some species have a positive KOH-reaction (\pm red, yellowish or orange-brown, olivaceous green, black) ([Liimatainen et al. 2022](#)). The asexual morph is unknown. Members of this genus are distributed in the northern hemisphere ([Garnica et al. 2011](#)). Forming ectomycorrhizal associations mainly with the trees of Fagaceae (*Castanea*, *Castanopsis*, *Chrysolepis*, *Fagus*, *Notholithocarpus*, *Quercus*) and Pinaceae (*Abies*, *Larix*, *Picea*, *Pinus*, *Pseudotsuga*, *Tsuga*), some species also with Betulaceae (*Alnus*, *Corylus*, *Carpinus*), Cistaceae (*Cistus*, *Helianthemum*) and Malvaceae (*Tilia*) ([Garnica et al. 2011](#)). Most species are rare and have narrow ecological preferences ([Frøslev et al. 2007](#)), and the majority are calcicolous or calciphilous. *Calonarius* is currently placed in *Cortinariaceae*, *Agaricales*, *Agaricomycetes*, *Basidiomycota*.

References

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Entry by

Maoqiang He, State Key Laboratory of Mycology, Institute of Microbiology, Chinese Academy of Sciences, Beijing 100101, China

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