

Outlineoffungi.org - Note 1393 *Malpighivinco*

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Malpighivinco Radek & Strasser

Radek et al. (2023) introduced the monotypic genus *Malpighivinco* within *Nephridiophagaceae* (*Nephridiophagales*, *Chytridiomycetes*, *Chytridiomycota*) to accommodate *M. podagrica* Radek & Strasser, based on morphological characteristics and phylogenetic analyses using SSU and LSU sequence data. The type species was isolated from the Malpighian tubules of *Podagrica malvae* in Italy. Phylogenetic analysis confirmed that *M. podagrica* forms a distinct clade within *Nephridiophagaceae*. Morphological studies using differential interference contrast (DIC) microscopy and Giemsa staining revealed the presence of both young sporogenic plasmodia (ysp) and mature sporogenic plasmodia (msp) within and outside the Malpighian tubules. It showed nuclei of vegetative plasmodia (vp) and young spores with varying contrast levels. The spore development stages observed included thin-walled young spores, mature spores with a central spore opening, and mature spores with a five-layered thick spore wall. Ultra-thin sections further displayed uni-nucleated mature spores and vegetative nuclei within the mother cytoplasm, highlighting the intricate structure and developmental stages of nephridiophagid. This detailed morphological and phylogenetic analysis underscores the unique characteristics and distinct lineage of *M. podagrica* within *Nephridiophagaceae* (Radek et al. 2023).

Reference

Radek R, Wurzbacher C, Strasser JF. 2023 – New nephridiophagid genera (Fungi, *Chytridiomycota*) in a mallow beetle and an earwig. *MycKeys* 100, 245.

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