

**P003**

*Attachment of Laboulbeniales fungi on their ant hosts: ultrastructural study*

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Laboulbeniales (Ascomycetes) are ectoparasitic fungi growing on the cuticle of arthropod hosts. Among social insects only termites and ants are known to harbour some species of Laboulbeniales. Although the existence of Laboulbeniales on ants has been known for more than a century, the interactions with their hosts, especially their mode of attachment to the cuticle and their mode of gaining nutrients from their hosts remain understudied. In Europe four of the only six ant-parasitizing Laboulbeniales species have been reported. Aim of the present study is to morphologically compare these four fungi, namely *Laboulbenia camponoti* on its *Camponotus sylvaticus* host ant, *Laboulbenia formicarum* on *Lasius neglectus*, *Rickia wasmannii* on *Myrmica scabrinodis* and *Rickia n.sp.* on *Messor wasmannii*. With the use of Scanning and Transmission Electron Microscopy we elucidate similarities and differences in the attachment of these fungi to their ant hosts. Observations so far have not given any indication of fungus penetration into the host tissues. Insights gained from this comparative approach will provide a better understanding of Laboulbeniales-host relationships in ants.