

Bark beetles and their galleries: well-known niches for little known fungi on the example of *Geosmithia*

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The oak bark beetle (*Scolytus intricatus*, *Scolytidae*, *Coleoptera*) was studied during the years 1997-2003 with respect to the occurrence of microscopic fungi on the surface of its body. Samples were collected in eight localities in the Czech and Slovak Republics. The investigation was focused on all different stages of the beetle's life cycle: eggs, larvae, adults before emergence, adults in generation and maturation feeding (nearly 600 samples), and also on galleries (400 samples). The most frequent fungi associated with *S. intricatus* were yeasts, *Geosmithia* spp. and *Penicillium* spp. Ophiostomatoid fungi were isolated, too. Great attention was paid to the occurrence of *Geosmithia* spp., which were so far recorded rarely. They were frequently found in all stages of the life cycle of *Scolytus intricatus*, except for males in maturation feeding. The ecology of *Geosmithia* spp. in feedings of phloem inhabiting insects is discussed for their negative cellulase production and the ecology of associated insect species. Trees infested with *Scolytus intricatus* represent a major and still little explored niche of *Geosmithia* spp.

Key words: microfungi, *Geosmithia*, *Scolytidae*, ophiostomatoid fungi, yeasts