

INTERACTIONS AMONG CAMBIOPHAGOUS INSECTS, FUNGI, AND PLANT

S u m m a r y

The article deals with selected aspects of the interactions among cambiphagous insects, associated fungi and host plants. The association of fungi with cambiphagous insects, mainly belonging to the family Scolytidae, is an example of numerous mutualistic associations occurring in nature. Such fungi play an important and variable role in natural forest ecosystems as well as in artificial biocoenoses. Some of them belong to a group of saprobionts which cause only the discolouration of wood, others are pathogens causing serious tree diseases. Cambiphagous insects may also serve as vectors of other fungi from the genus *Ceratocystis sensu lato*, their perfect as well as imperfect stages. Within a group of fungi *Ceratocystis sensu lato* four genera of fungi have been distinguished: *Ophiostoma*, *Ceratocystis sensu stricto*, *Ceratocystiopsis* and

Gondwanamyces. These fungi are introduced into the plants during the attack of the beetles. The life cycle of most of ophiostomatoid fungi is closely connected with insects as they develop on walls of larval galleries and adjacent sections of bark and sapwood, causing their discolouration. Most often propagules of these fungi are carried on the body surface of beetles and in their digestive system. Also mites associated with beetles play a very significant role in transfer of these fungi. The ophiostomatoid fungi on the cambiphagous insects influence their nutrition and behaviour, help to improve breeding substrates, and to overcome of host plant resistance. Some fungi associated with cambiphagous insects may possess pathogenic properties and may contribute to weakening and death of trees.