

# Ambrosia fungi in the insect-fungi symbiosis in relation to cork oak decline

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*Summary*

Ambrosia fungi live associated with beetles (Scolytidae and Platypodidae) in host trees and act as a food source for the insects. The symbiotic relation is important to the colonizing strategies of host trees by beetles. Ambrosia fungi are dimorphic: they grow as ambrosial form and as mycelium. The fungi are highly specialized, adapted to a specific beetle and to the biotope where they both live. In addition other fungi have been found such as tree pathogenic fungi that may play a role in insects' host colonization success. Saprophytic fungi are also present in insects' galleries. These may decompose cellulose and/or be antagonistic to other less beneficial fungi. This paper summarizes the importance of ambrosia fungi and the interaction with insects and hosts. The possibility of the transport of pathogenic fungi by *Platypus cylindrus* to cork oak thus contributing to its decline is discussed.

*Key words*

*Raffaelea, Platypus cylindrus, Quercus suber, Ambrosia fungi*

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