

Abstract

Wood decaying fungi are an essential part of all forest ecosystems. On their functioning depends a number of other organisms which use substances produced during decay of wood. Enzymes that degrade wood represent indispensable tool for fungi in converting structural compounds of wood to water and carbon dioxide. That makes them an essential part of the carbon cycle in nature. The dynamic of fungal communities on decaying wood is determined by a range of abiotic and biotic factors. The variability of microclimatic conditions, differences in the wood humidity and a gaseous mode are identifying stress factors which define the presence of species adapted to those conditions. An important factor, with which we can partially predict community composition, is the degree of decomposition of wood and the history of a species on the substrate. Another indicator, which may partly explain the composition of the community is a way of dying of a tree and a type of decaying substrate. Often, the development of a community follows from the primary colonizers, with high tolerance to unfavorable conditions, through the secondary colonizers, which have the ability to obtain the substrate over primary colonizers, but require more stable microclimatic conditions, to late colonizers, who are adapted to stress factors as lack of nutrients.

Key words :

Fungi, decaying wood, rot, ecology, succession