

# ARMILLARIA SPECIES IN THE MISSOURI OZARK FORESTS

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## ABSTRACT

In the Missouri Ozark Mountains, species of the white-rot wood decay fungus *Armillaria* contribute to oak decline. To investigate the relationships of *Armillaria* species with their hosts, the DNA fingerprinting technique PCR-RFLP of the IGS region was modified and refined to efficiently identify to species *Armillaria* isolates collected from sites within the Missouri Ozark Forest Ecosystem Project (MOFEP). Isolates were successfully identified as *A. mellea*, *A. tabescens*, and *A. gallica*. Contingency table analyses of the *Armillaria* species found in 2002 with their host tree species revealed that both *A. mellea* and *A. gallica* are equally recovered from recently dead dogwood hosts although *A. mellea* is significantly recovered more often from recently dead oak species, specifically red oak species. Analyses of isolates collected from stumps in 2003 and 2004 revealed no significant difference in the recovery of *A. mellea*, *A. gallica*, or *A. tabescens* from red and white oak species stumps.