

## Decay fungi associated with woodpecker nests of oak species in isparta and Mersin Province in Turkey

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**Abstract:** Woodpeckers generally choose nest and roost sites in dead or partially dead trees, apparently related to the presence of fungal decay. Many woodpeckers excavate cavities in partially decayed wood within two weeks. Most woodpeckers take advantage of softened, but not extensively rotted wood, but many factors influence this balance. In this work we determined the species of decay fungi in wood adjacent to woodpecker nests in old or dead oak trees. Surveys were conducted in oak forests in Isparta- and Mersin provinces. Trees were examined for the presence of 1-2 year-old woodpecker nests. Presence and absence of decay prior to cavity excavation was estimated by visual inspection of the nest trees. Location (co-ordinates) and diameter at breast height of each tree were recorded. Bore cores and saw dust were taken 10 cm below from woodpecker nests from 15 trees. Isolations were made from both cores and saw dust from the nest and at stump height of the tree. Cores were surface sterilized by flaming, cut into 0.5 cm long fragments, and pieces placed on malt extract agar containing streptomycin. Following incubation at 22°C for two weeks, any outgrowing mycelia subcultured to purity, partially classified based on morphology and identified by amplification and sequencing of the internal transcribed spacer (ITS) region of the nuclear ribosomal DNA. To date, 26 morphologically different fungal species were obtained from wood cores and saw dust. Two species were Hymenomycetes. The present work is the first examining woodpecker nests and decay fungi in oak forests in Turkey using DNA-based methods.

**Keywords:** Fungus, Oak, Woodpecker