

## Decay properties of *Agrocybe cylindrica* isolated from street trident maple (*Acer buergerianum*) trees in Kyoto City

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**Purpose:** There are many trident maples as street tree in Kyoto City. Our recent survey has revealed that some trees are the host of a mushroom *Agrocybe cylindrica*. The decay-fungi infestation of street trees can cause collapse of the trees, and early detection of *A. cylindrica* infestation in street trees and its control might be important to ensure the safety of Kyoto City residents and beauty of the urban landscape. We report the results of laboratory wood decay tests of *A. cylindrica*, isolated from street trident maple trees.

**Methods:** Test wood specimens were hardwood species, *Fagus crenata*, *Populus xeroamericana*, *Acer pictum*, *Kalopanax septemlobus*, *Zelkova serrata*, and *Ulmus davidiana*. Heartwood and sapwood were tested separately. The size of wood specimen was 20 (R) x 20 (T) x 10 (L) mm. The test was carried out in the laboratory for 12 weeks at 26 degrees Celsius in the dark.

**Results:** There were no significant difference in the mass loss rates of decayed specimens for heartwood and sapwood, except for *Z. serrata* and *U. davidiana*. From the results of components analyses of decayed specimens, it was suggested that *A. cylindrica* preferentially degraded cellulose and hemicellulose, even though the fungus was categorized as a white rot. The observation of specimens by SEM also showed that the secondary wall of cell wall of xylem fiber was susceptible for degradation by *A. cylindrica*.