

HUNTER L. PALMER, ALLISON C. BEVERLIN, and LAURA S. ROBERTSON, Dept of Biology, Shepherd University, Shepherdstown, WV 25443. Substrate Specificity of Wood-Decay Fungi Native to the Eastern Panhandle of West Virginia.

While some wood-decay fungi are pathogens that can cause harm to desirable trees, wood-decay fungi provide a vital service in the break-down of dead trees and recycling of nutrients. In addition, some wood-decay fungi are edible, some have reported medical uses, and some may be useful for bioremediation. This study is a preliminary investigation of the growth properties of native wood-decay fungi in the Eastern Panhandle of West Virginia. We collected wild wood-decay fungi, identified the species by gross morphology and DNA sequencing, and then investigated growth on solid culture medium containing sawdust from different species of tree. Wild-collected fruiting bodies were butt-cultured on Potato-Dextrose Agar. Initial cultures were heavily contaminated with bacteria and other fungi. To reduce contamination, we used a combination of surface sterilization and multiple passages. Species collected included *Auricularia fuscusuccinea* (Wood Ear), *Trametes sanguinea* (aka *Pycnoporus sanguineus*), *Cerrena unicolor* (Mossy Maze Polypore), and *Hericium erinaceum* (Lion's Mane). Fungi were grown on solid culture medium containing sawdust from Honey Locust, Box Elder, Mulberry, Hickory, Red Oak, Walnut, Heart Pine, and Pine. Heart Pine sawdust inhibited growth of all fungi tested. *T. sanguinea* formed spores on Mulberry sawdust, but not on any other sawdust tested. *A. fuscusuccinea*, *T. sanguinea*, and *C. unicolor* sporulated on all species of sawdust. *H. erinaceum* did not grow well on dextrose media without sawdust.