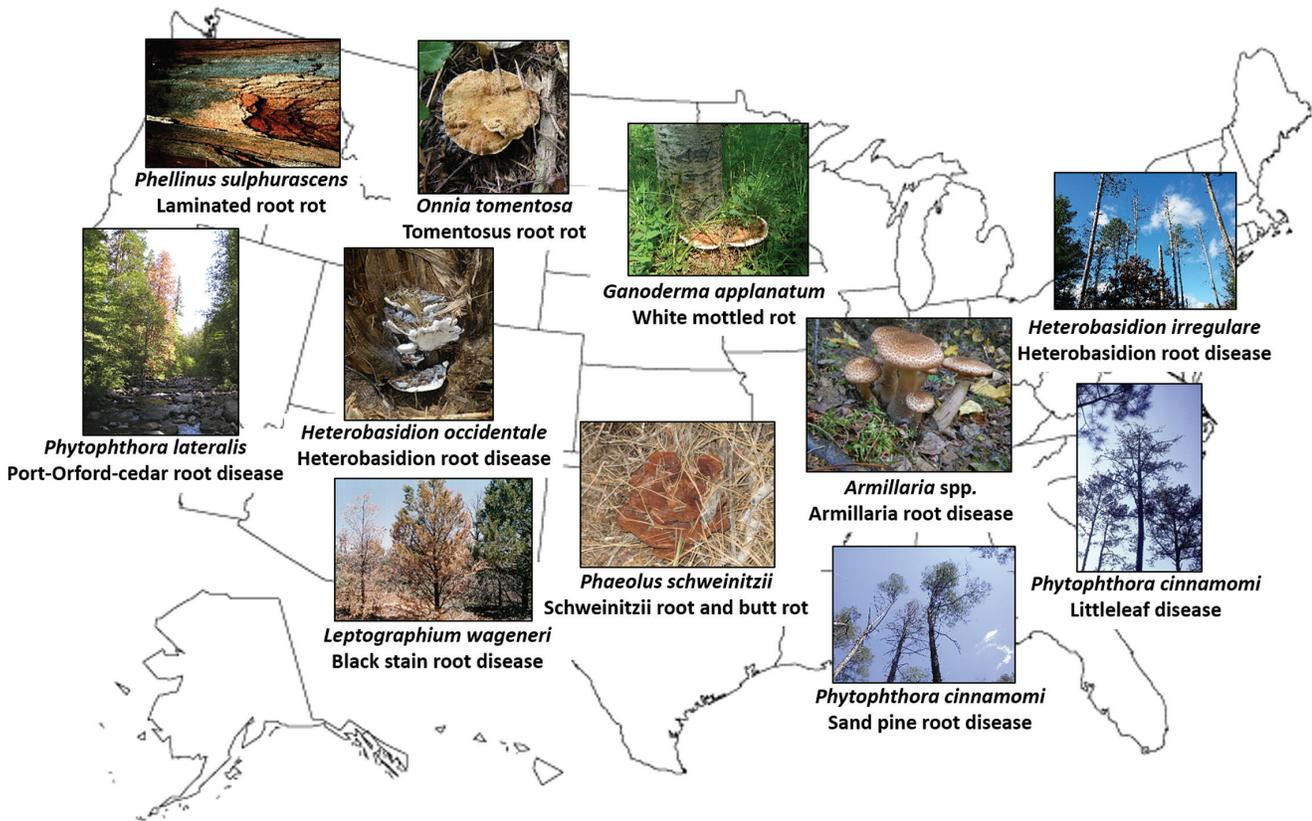


Forest Root Diseases Across the United States



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Abstract

The increasing importance and impacts of root diseases on the forested ecosystems across the United States are documented in this report. Root diseases have long-term impacts on the ecosystems where they reside due to their persistence onsite. As a group of agents, they are a primary contributor to overall risk of growth loss and mortality of trees in the lower 48 States. Root diseases kill trees, decay wood, slow tree growth, predispose trees to other mortality agents, and cause trees to fail or fall over. In this manner, these diseases reduce timber volume, alter forest composition and structure, impair ecosystem function, and decrease carbon sequestration. Root diseases cause tree failures that can result in serious injury, damage, or death, and are thus important components in hazard tree management. Without adequate knowledge of root diseases and their roles in forested ecosystems, our ability to manage their negative impacts and build resilient forest landscapes is severely compromised.

Keywords: *Armillaria, Heterobasidion, Leptographium, Onnia, schweinitzii, Phellinus sulphurascens, Phytophthora, Ganoderma*

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